



yieldWerx enables Azoteq to achieve up to 98% yield, and ramp products to market faster

Background

Azoteq (Pty) Ltd (www.azoteq.com) is a leader in capacitive proximity and touch solutions for switches, sliders, scroll wheels and track pads in consumer and industrial applications.

Yield Analysis before yieldWerx

Azoteq was previously just storing test data in excel files, and were not able to efficiently analyze test data or generate any reports that could help with root cause analysis and yield management. Data was stored manually, which was not only time consuming, but also a daunting task that hampered engineer productivity, and shifted focus from high value activities. Azoteq has been historically processing over 40 million devices per year, with an average yield of 93% at wafer sort stage, and 95% at final test stage. Their goal was to achieve 95% yield at the wafer sort stage and 98% yield at the final test stage. However, because of the lack of a powerful yield management system, the engineering team was unable to pinpoint inefficiencies and issues that were impacting yield and affecting product ramp-up timelines.

Yield Analysis after yieldWerx

Azoteq processes around 20,000 dies per day, and generating new test data of around 1GB in volume, of significant yield dependencies. This data is coming from several test houses, foundries, and assembly and test sites. Previously with their old practice, they were unable to handle data of this volume, velocity and variety, and they chose to deploy a yield management system. yieldWerx was selected after a careful selection process, and now enables Azoteq to

undertake detailed analytics. The real-time data management capabilities of yieldWerx has helped them in improving the engineering productivity at the same time. Around 10-15 engineers at Azoteq use yieldWerx every day to perform yield analysis by looking at yield trends, bin histograms to see which bins are failing the most, parametric histogram and other reports that can be exported and analyzed to find the root cause that impacts yield and creates operational inefficiencies in the supply chain.

Yield improvement and product ramp up

yieldWerx's powerful reporting and analysis capabilities helped Azoteq achieve their goal of yielding 95% at wafer sort stage and 98% at the final test stage. This leads to shorter time to entitled yields across the production cycle, optimizing usage of valuable test time, enhancing equipment throughput and giving instant insight into their fragmented global supply chain. This resulted in financial savings, as well as enhancing Azoteq's competitive advantage in the market due to an increased focus on quality and reliability of the products being shipped out of Azoteq facilities.

“yieldWerx is playing an important part in helping us achieve up to 98% yield at final test. We use it daily at Azoteq and apart from data analysis it helps us in identifying systematic equipment issues as well; one device was hitting low current and we marked it as failed die but yieldWerx helped us in identifying that the issue is with the tester and not the die.”

- Dr. Mladen Božanić
Senior IC Design Engineer, Azoteq