

## THE CHALLENGE

We were contacted by a potential customer who had a unique component that they wanted to clarify was able to be solderability tested and would order a machine if we could get the required test results.

The variables of their component were solder alloy, solder temperature, pre-heat time, angle of dipping and flux.

In order for Gen3 to prove these samples worked, we had the customer ship us samples of the components where we undertook extensive testing.

## THE HAPPY OUTCOME

To reduce the number of tests from a full factorial matrix we tested each variable. This resulted in 8 tests. At the start of the work, no flux had been provided.

We noticed that upon dipping there was effervescence from the side of the component and the globule was left in a distorted shape.

This atypical behaviour can be explained by the globule being poisoned and the melting behaviour altered. Material from the globule had entered the globule changing its behaviour.

After the results of these tests, Gen3 had successfully proved that the components were able to be tested accurately to the customers requirements. The customer then placed an order with Gen3 for their own MUST solderability tester.



## BENEFITS TO OUR CUSTOMER. SPECIALIST KNOWHOW

In a mass soldering operation where there is more available solder these components will solder successfully. However, difficulties with this work revealed how solderability testing can be used for more detailed studies investigating the construction and material set in the customer's components to further optimise their solderability.

## OUR RECOMMENDATION. WHY A MUST3?

The latest technological evolution and the world's no. 1 solderability test system.

Capable of measuring down to 0.001mN and performs solderability testing in accordance with all major international standards.

**GEN3. TESTING AND MEASURING THE ELECTRONICS INDUSTRY FOR OVER 40 YEARS. FOR THREE GENERATIONS, GEN3 HAVE DESIGNED, ENGINEERED, MANUFACTURED, AND DISTRIBUTED THEIR TEST AND MEASUREMENT EQUIPMENT INTO THE ELECTRONICS INDUSTRY TO SHIELD THEIR CLIENTS FROM FAILURE IN THE FIELD.**

The team is made up of industry experts who work to set the standards around circuit testing, measurement, and compliance. They collaborate with key industry associations, offering our unique experience and expertise to educate all on what it takes to succeed.

Testing must be finite and flawless. GEN3 understand the need for precision. Get closer to perfection by minimising your risk.

**GEN3. Precision as Standard.**