



Solder plus Support

# CASE STUDY

## AIM's REL61 Solder Bar Improves Hole Fill and Wetting vs SAC305 in Wave Solder Application

### PROBLEM

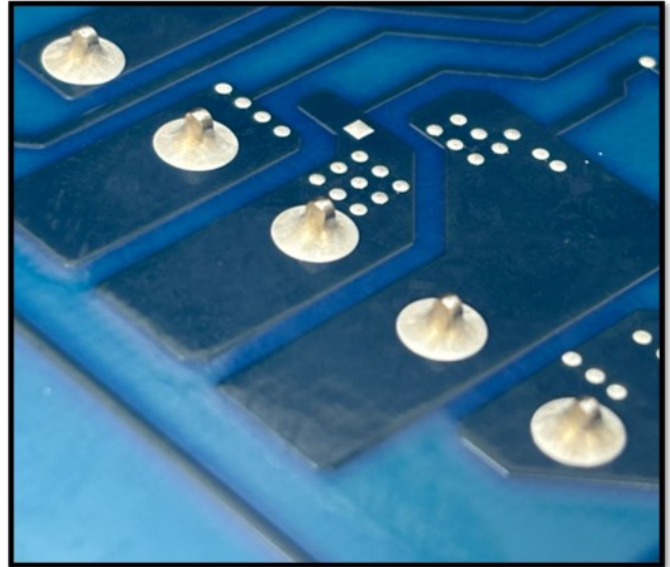
An electronics manufacturer was using SAC305 solder bar in a wave solder process and sought a cost-reduction opportunity without sacrificing soldering performance. The customer also experienced barrel filling challenges on a through-hole assembly, particularly on a large connector.

### SOLUTION

AIM evaluated REL61 solder bar in a wave solder process using the customer's production board design. Testing was conducted on nine boards in an applications lab using the customer's wave parameters. REL61 was benchmarked against the incumbent SAC305 alloy. The evaluation was designed to determine whether AIM's REL61 alloy could improve through-hole fill and wetting while supporting the customer's cost-reduction goals.

### RESULTS

The evaluation was successful. Compared to SAC305, REL61 delivered improved filling and wetting across all evaluated components. The large connector achieved 95% plated through-hole fill, and boards built with REL61 passed electrical and functional testing without issue. Conformal coating was then applied to the boards, and the completed assemblies were delivered to the process engineer for follow-up.



### PRODUCTS/SERVICES USED

- ▶ [REL61 Bar Solder](#)
- ▶ [AIM Solder Technical Support](#)

### SUCCESS METRICS

- ▶ Improved hole fill and wetting vs SAC305
- ▶ 95% plated through-hole fill achieved on large connector
- ▶ Assembled boards passed electrical and functional testing
- ▶ Cost savings

### LEARN MORE

Learn more about the cost saving and performance benefits of REL61 from AIM experts:

- ▶ [AIM's REL61 Solder Alloy](#)
- ▶ [Beat the Silver Cost Surge](#)