



Solder plus Support

# CASE STUDY

AIM's CX18 Cored Wire Provides Stable Manual Soldering Performance During Supply Shortage

## PROBLEM

An IT/telecommunications manufacturer experienced a supply shortage with its incumbent SAC305 cored wire, creating a need to evaluate an alternate supplier for a manual soldering application. The assembly included lead-free through-hole connectors on a thick 3 mm FR4 board with ENIG pad finish, requiring stable wetting and reliable joint formation.

## SOLUTION

AIM supplied CX18 SAC305 cored wire with a 0.032-inch diameter and 2.5% flux for evaluation in the customer's manual soldering process. The evaluation was completed using the customer's existing hand soldering parameters.

## RESULTS

CX18 delivered stable soldering performance with acceptable wetting and joint formation. No issues were observed. Following the successful evaluation, the customer indicated plans to submit a purchase order.



## PRODUCTS/SERVICES USED

- ▶ [CX18 No Clean Cored Solder Wire](#)
- ▶ [SAC305 Solder Alloy](#)
- ▶ [AIM Solder Technical Support](#)

## SUCCESS METRICS

- ▶ Stable manual soldering performance
- ▶ Excellent wetting and joint formation
- ▶ Elimination of supply chain issues

## LEARN MORE

Learn more about the science of soldering from AIM experts:

- ▶ [Why Does Soldering Require Overshooting the Melting Point?](#)
- ▶ [What is Solder and How is it Used in Electronics Manufacturing?](#)