

## Case Study



### Orthodyne Electronics, a Division of Kulicke & Soffa

Founded in 1962, Orthodyne Electronics, is an award-winning, global leader in the manufacture of manual and automatic ultrasonic wedge bonders for the power semiconductor, automotive, and industrial markets. Orthodyne joined the Kulicke & Soffa team in October 2008, an exciting change that brings new resources to Orthodyne's product development and manufacturing processes and continues its long-standing tradition for customer satisfaction.

Orthodyne is committed to developing products to meet its customers' requirements based on the demand for increasingly sophisticated interconnection techniques, higher yields and greater return on investment. PowerRibbon® is an evolutionary, innovative progression of Orthodyne's time-tested ultrasonic aluminum wire bonding. Dage was the first supplier to support the bond test requirements of this new technology.

With Orthodyne's development and release of PowerRibbon®, they selected the Dage 4000 tester as their primary test equipment for ensuring their product lines met the high quality standards that made them leaders in the market.

#### Making the Right Choice

Orthodyne carried out an extensive evaluation that involved evaluating equipment from several suppliers. TK Loh, Applications Manager at Orthodyne, explains that at the end of the assessment the Dage 4000 was chosen for a number of reasons, but in particular, its PowerRibbon® testing capability, its high consistency and importantly, its performance, which was required to meet Orthodyne's quality specifications.



**ORTHODYNE<sup>®</sup>  
ELECTRONICS**

A Division of 



Dage 4000 bond tester performing a wire shear test.

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### **Dage in Action**

Both the Orthodyne production and product development teams utilize the Dage bond testers every day. The production team tests every wire bonder before it is shipped to the customer, performing a range of tests depending on their customers' specific requirements. These tests may include a shear test - to assess the bond integrity between silicon and aluminum within the integrated circuit chip, a pull test – to verify the strength of the bond heel region, and/or a tweezer peel test – that is often required for testing PowerRibbon® bonds.

The product development team uses the Dage bond testers to assess new materials and packaging designs as part of its ongoing research and development work in next generation packaging. The fact that both production and product development teams can utilize the Dage 4000 tester is very beneficial from a financial perspective and in terms of internal test consistency.

### **A Trusted Partner**

Over the years Orthodyne has developed a trusted relationship with Dage. Orthodyne has confidence in the Dage equipment and in Dage's support of Orthodyne's evolving bond test needs. As a very customer-satisfaction oriented company, Orthodyne expects the same from their vendors and has been impressed with the sales support, training and technical support that is received from Dage and it views Dage as a very knowledgeable and responsive organization.

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