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For Immediate Release:

## **SmartWeld+ Delivers Significantly Improved Laser Welding Results**

**Santa Clara, CA, June 24, 2019** – SmartWeld+ is an add-on for Coherent StarFiber laser welding products that delivers dramatically improved results, particularly when welding dissimilar or otherwise challenging materials, such as aluminum and copper. Specifically, for dissimilar materials, it improves blending of the melt pool for a better metallurgical bond and more consistent results. When welding highly reflective or volatile materials, SmartWeld+ increases process stability and reduces spatter, porosity and cracking, because it produces lower viscosity and reduced surface tension in the melt pool. The ability of SmartWeld+ to better control energy input into the material also decreases the heat affected zone (HAZ). It is particularly suitable for welding thin, dissimilar and/or temperature-sensitive materials. Additionally, SmartWeld+ simplifies welding workpieces with poor fit-up tolerances since it allows the width and depth of the weld seam to be controlled independently of the focused laser spot size. Together, these features make SmartWeld+ a candidate for precision welding in medical device manufacturing, microelectronics fabrication, e-mobility production and even watchmaking.

SmartWeld+ comprises a processing head, containing fixed beam delivery optics and a galvanometer scanning module, together with sophisticated software for producing a variety of pre-programmed patterns. These “smart” patterns move well beyond beam wobble, to encompass spirals, ellipses and other complex shapes. Furthermore, the pattern size and orientation can be controlled to follow part contours and achieve constant weld quality and seam dimensions. The combination of fast scanning (up to 4 kHz) and high-precision motion makes SmartWeld+ particularly suitable for on-the-fly adaptation.

SmartWeld+ integrates smoothly with Coherent StarFiber products and significantly extends their capabilities.

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Founded in 1966, Coherent Inc. is one of the world's leading providers of lasers and laser-based technology for scientific, commercial and industrial customers. Our common stock is listed on the Nasdaq Global Select Market and is part of the Russell 1000 and Standard & Poor's MidCap 400 Index. For more information about Coherent, visit the company's website at <https://www.coherent.com> for product and financial updates.