

## **In-process monitoring of fiber laser based joining**

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The high throughput of remote laser welding systems needs to be accompanied by high process yield and reliable detection of defects. This is especially true in the rapidly expanding e-mobility market and demanding, safety-critical welds in BIW and automotive seating industries. To meet this need IPG Photonics has combined their high power scanner beam delivery with the LDD Inline Process Monitor. In this paper, we introduce this technology combination, its capabilities and, for the first time, demonstrate a collection of lap welding results inspired by the afore-mentioned application spaces.