For Immediate Release:

Fast OEM Laser Power Sensor Elevates In-Line Control of Critical Processes

Santa Clara, CA, June 24, 2019 – The Coherent PowerMax PRO OEM is a new laser power sensor whose large active area, fast response and high power capacity offer advantages over the semiconductor photodiodes and other detectors commonly used for continuous inline monitoring in applications having a narrow process window. Specifically, the new PowerMax PRO OEM utilizes Coherent’s patented transverse thermoelectric detector technology, which combines the response speed of a photodiode with the broadband wavelength coverage, large detection area, dynamic range, and laser damage resistance of a thermopile. This enables PowerMax PRO OEM to offer a higher performance and cost competitive alternative to photodiodes, which often require optical attenuation and complex pre-amplification for onboard power measurement in precision materials processing systems.

The new PowerMax model is particularly useful with CO2 lasers, where its high power handling capability, large active area (15 x 15 mm²) and broadband spectral response deliver fast, accurate and low noise measurements; plus, it eliminates the expense and complexity of the optical attenuators, preamps and TE coolers often required with photodiodes. It is also well matched for measuring ultra-short pulse industrial lasers with output in the ultraviolet, since an available coating prevents exposure related drift in detector response, such as occurs with photodiodes.

The PowerMax PRO OEM offers an attractive solution for embedded use in precision materials processing systems that operate in a highly confined process window, and therefore require constant monitoring of laser output. Typical applications include aesthetic medical systems and precision micromachining systems used in microelectronics manufacturing (e.g. via drilling), solar cell fabrication, medical device production, and various tasks in converting/packaging. In addition to the bare OEM detector, Coherent can also supply a ready to use “developer’s kit”, including cables, housing, and software integration.

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