

Compact, surface-mount IR LED emitter from TT Electronics generates uniform, parallel light output for high-precision applications

Market-leading 7mm spot size and high on-axis intensity ensure dependable detector response

Woking, UK, 23 August, 2018 - [TT Electronics](#), a global provider of engineered electronics for performance critical applications, has introduced a compact, infrared LED emitter with the industry's largest spot diameter of 7mm for super-reliable optical sensing and position encoder applications.

With up to 10mW total radiated power at the maximum drive current of 100mA, and 2.25° angle of half intensity, the OP207CL couples optical flux extremely efficiently onto the receiving photo-sensor to ensure clearly detectable on/off transitions. The integrated collimating lens creates a tight beam profile for use with accuracy-dependent devices such as radial or linear encoders for absolute or incremental measurement, as well as long-range light curtains, edge detectors, scanners, and general optical sensing and switching.

Having a wide operating temperature range of -40°C to 105°C, the OP207CL can withstand demanding environments in a wide range of applications including industrial automation, safety systems, robotics, security detectors, or other equipment requiring dependable position, proximity, or motion sensing.

The surface-mount LED with integral moulded lens comes mounted on a 9.9mm x 9.9mm PCB substrate. The compact footprint and height of only 6.3mm allow use in space-constrained situations. The GaAIAs LED emits wavelengths in the 840-870nm near-infrared range for good spectral matching with silicon photo-sensors, and the typical rise/fall time of 22ns ensures fast response to turn-on/off signals.

TT Electronics' OP207CL LEDs are available now, and shipped in plastic trays for protection during transit and storage. For further information, visit <http://www.ttelectronics.com/optoelectronics/ir-emitters/plastic-infrared-emitting-diodes>.

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About TT Electronics plc

TT Electronics is a global provider of engineered electronics for performance critical applications. It works with market-leading customers in the industrial, aerospace and defence, medical and transportation sectors.

With headquarters in Woking, UK, TT Electronics has three divisions: Global Manufacturing Solutions, Power Electronics and Sensors and Specialist Components.

For more information about TT Electronics visit www.ttelectronics.com.

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