



Kaman Measuring Highlights Family of Precision Measuring Systems for Free Space Optical Communication

Proven solutions for fast steering mirror control

Middletown, CT – The Measuring Division of Kaman Precision Products, Inc., the world leader in the design and manufacture of high-performance position measurement systems, highlights its family of precision differential non-contact eddy current measuring systems for free space optical communication. Widely used in commercial and military imaging and communication satellites, interplanetary exploration vehicles, laser targeting, night vision, and optics stabilization systems, the differential inductance transducer systems have a proven track record of outstanding performance. Kaman's measuring systems provide reliable high resolution position feedback, ensuring that a reflected laser beam finds its target hundreds or even thousands of kilometers away. The differential measurement family includes the KD-5100+ high reliability displacement measurement system, the commercial grade DIT5200L differential impedance transducer, and the KD-5600 digital differential measuring system.

The KD-5100+ features a stable design, extremely small size, and low power consumption, making it ideal for laser communications satellites and ground stations, image stabilization systems, and directed energy systems for ground, shipboard and airborne applications. With its small package size – only 2 x 2.12 x 0.75 inches thick – the KD-5100+ is an ideal solution for meeting SWaP-C requirements. It is manufactured to Mil-PRF-38534 Class H, with MIL-SPEC components used throughout the electronics.

The KD-5600 digital differential measuring system is a highly accurate and easy to use precision system featuring improved communication and convenience. Kaman has brought together its custom sensors, signal processing, analog to digital converter, and custom calibration system to deliver the precision KD-5690 system. This system provides true digital, high bandwidth, and high linearity, with a high end communication bus for fast data transfer.

Also on offer is the DIT-5200L which offers true differential for common mode rejection at an economical price. Capable of subnanometer resolution with high sensitivity (up to 10v/mil, 39 mV/ μ m) and outstanding linearity (up to 0.1 percent full range), this product provides a powerful solution for a diverse set of applications that demand exacting precision. The commercial-based, fully analog product is built to IPC A-160 Class 3 standards. Depending on the program requirements, it also offers the opportunity for commercial-off-the-shelf up screening. The I/O is on a 9-pin mini-D connector, and the input power connections are reverse voltage protected.

For more information about the Laser Comm family of precision measuring systems for free space optical communications, visit <https://www.kamansensors.com/differential-systems/>.

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About Kaman Precision Products Measurement Division

Kaman Precision Products Measurement Division is a worldwide leader in the design and production of high-performance, precision non-contact position measuring systems using inductive, Eddy current technology. Recognizing that each customer has specific individual requirements, Kaman consults with customers to help choose the best sensor, conditioning electronics, and calibration for each application. With more than 40 years of experience, our advanced family of high-precision position sensors is used in

hundreds of applications in aerospace, automotive, energy, metals production, metalworking industries, and many others.

Part of Kaman Corporation of Bloomfield, Connecticut, we design and manufacture our products at a state of the art production facility that meets AS9100/B and ISO 9001:2000 quality management system requirements.

For more information call 800-552-6267, email measuring@kaman.com or go to www.kamansensors.com