new PRODUCTS











3D Printer

The Quantum X shape 3D printer from Nanoscribe GmbH & Co. is designed for rapid prototyping and wafer-scale batch production in life science, materials engineering, and microfluidics applications, among others. With a galvo system and smart electronic system control units on a sturdy granite-based platform, the printer uses an industry-grade pulsed femtosecond laser to provide microfabrication processes for nano- to mesoscale-size structures. The Quantum X shape features size control down to 100 nm in all spatial directions for nano- and microscale printing. Mesoscale printing for objects with sizes up to 50 mm is possible.

info@nanoscribe.com

Laser Power Sensor

The Ophir F80(120)A-CM-17 laser power sensor from **MKS Instruments Inc.** is a thermal sensor for measuring high-repetition-rate lasers with short pulses in the nanosecond, picosecond, and femtosecond ranges. The F80(120)A-CM-17 is a compact, calibrated, fan-cooled sensor that can withstand higher power densities. It measures average power up to 80 W and intermittent power up to 120 W. The device can be used for micromachining and materials microprocessing applications in the semiconductor, display, and medical industries.

sales.ophir.usa@mksinst.com





an autonomous laser scanning module for robots. The device can be integrated with multiple types of robotic carriers to enable autonomous mobile laser scanning. Fully autonomous and repeatable scan missions are possible. BLK ARC captures 3D point clouds and panoramic imagery as the robot moves through an environment.

info@leica-geosystems.com

UAV Lidar

The YellowScan Explorer long-range multiplatform lidar from **YellowScan** is a compact device designed for use with unmanned aerial vehicles or lightly manned aircraft. Its high-power laser scanner can catch points up to 600 m away, and its 2.3-kg weight enables an integrable system. When the Explorer is combined with YellowScan's software suite, users can easily extract and process point cloud data to meet the needs of the surveying, environmental research, archaeology, utilities, industrial inspection, civil engineering, and mining sectors.

contact@yellowscan-lidar.com

3D Sensor

The reflectCONTROL sensor from **Micro- Epsilon UK** is a compact, 3D noncontact surface



inspection system that enables fast, reliable defect detection on shiny and reflecting surfaces such as polished or painted metals, glass, and mirrors; painted plastics; and galvanized surfaces. Based on the deflectometry principle, the reflectCONTROL sensor can be used in a stationary mode for assembly lines or mounted on a robot to perform inline inspection. Inspection cycles are <2 s per measuring position, and the sensor provides a large measuring field.

info@micro-epsilon.co.uk

LED Line Illuminators

The LTLNC series of ultrahigh-power LED line illuminators from **Opto Engineering SRL** are designed for line-scan applications. The illuminators' design provides a powerful and homogeneous beam of light that is sharply focused onto the object that must be inspected via a condenser lens. The devices dissipate the generated heat due to the fins machined in the aluminum housing and the air-cooling ports designed to inject compressed air into the illuminator. The LTLNC series features industrial M8 connectors and can be easily installed into any machine vision system through its four M3 threads in the rear part of the aluminum housing.

info@opto-e.com