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For Immediate Release:

New UV Nanosecond Laser Offers Unmatched Lifetime for Micromachining

Santa Clara, Calif., June 26, 2017 - The AVIA LX 355-20 is an economical new q-switched, diode-pumped solid-state (DPSS) laser offering substantially longer operating lifetime than competitive products at similar power levels. The AVIA LX 355-20 delivers 20 W (at 50 kHz repetition rate) at 355 nm, a diffraction limited (M^2 <1.3) beam, and an expected lifetime of 20,000 hours.

An unmatched combination of performance, reliability and economy make this laser an ideal choice for cutting, drilling and marking in microelectronics fabrication and packaging. Applications include cutting flex material, chip and mold form marking, IC package trimming, as well as wafer scribing and cutting. In addition, 3D chip package manufacturing tasks such as via drilling and other processing of glass, ceramics, copper and composites are enabled. A particular advantage of the AVIA LX 355-20 is a shorter pulsewidth that reduces the heat-affected zone and enables higher precision processing of thinner materials.

The AVIA LX 355-20 offers an attractive feature set. Its compact size (140 mm x 110 mm x 620 mm), single-unit construction (combining laser, controller and pump diodes) and three-point kinematic mounting simplifies integration; the only user requirements are power (48 VDC) and cooling water. The laser delivers long, maintenance free lifetime, thanks to the use of HALT/HASS protocols during design and production. Harmonic crystal mapping ensures that repositioning of the third harmonic generation (THG) crystal (required periodically in all frequency-tripled DPSS lasers) can occur automatically without any significant change to the output beam size or power distribution, thus eliminating the need to adjust downstream beam delivery optics after THG crystal shifting.

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