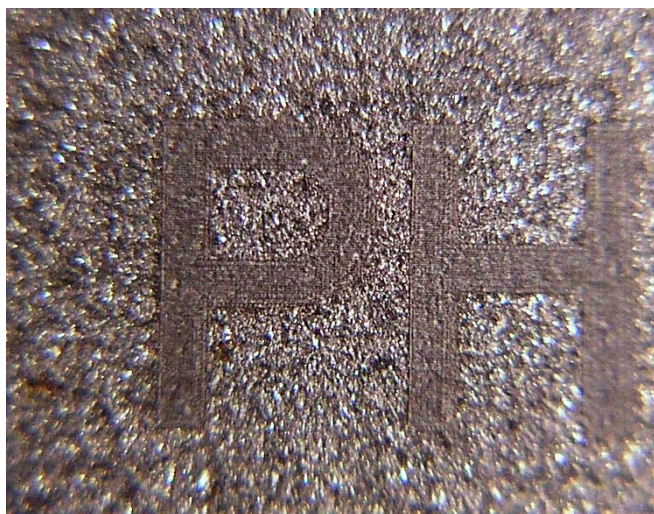
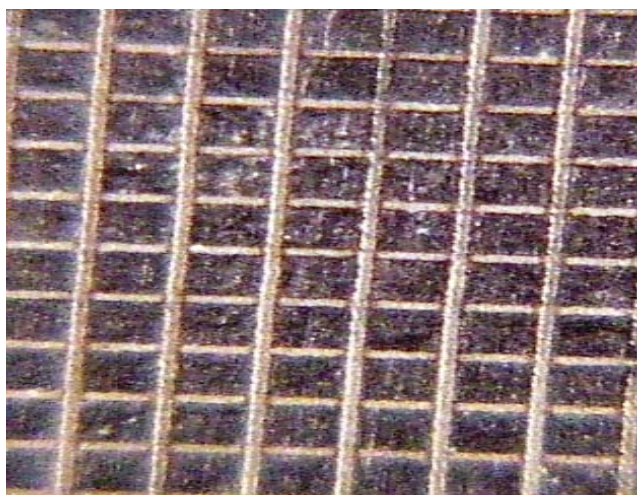


Marking Metals with 355 nm DPSS laser



Laser marking on metals has long been a domain of IR and CO₂ lasers. The marks are the results of thermal modification of the metallic structure.

In today's market of miniature parts and microcircuits, there is a strong demand for high resolution and minimal HAZ (Heat Affected Zone). Due to the photo-chemical and photo-ablation characteristics of 355 nm DPSS lasers, many metals can now be marked with little or no HAZ. The diffraction limited spot size of 355 nm allows the DPSS laser to produce features many times smaller than traditional IR lasers.

The Model 3510-30, with a 30 μ m beam diameter was used to produce the two images shown. The grid shows 30 μ m lines on a 300 μ m pattern. By varying the rep rate, or scan rate of the laser, the user can seamlessly switch from marking to photo etching.

Laser Model	Average Power	Rep Rate	Scan Rate
3510-30	1 Watt @ 355 nm	30 kHz	50-500 mm/sec