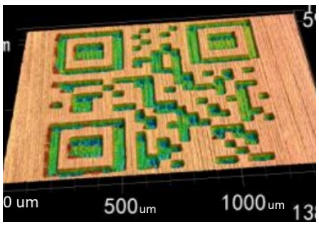
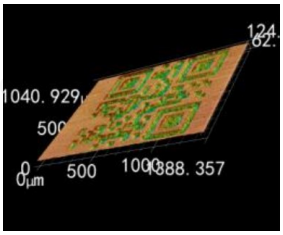
Laser Marking Process

Utilizing Photonics Industries' DX Series Nanosecond Laser





Sample Information

The material type is a battery chip. The specific sample thickness is 0.2mm and has a length of 152mm by width of 152mm. The specific application is marking a bar code on a typical battery chip.

The nanosecond laser material marking process shall mark with clear edges and no burrs.

System Information

Laser Source: DX Air-Cooled Series Laser Wavelength: 355nm

Standard Processing Equipment: i.e. Scanning Galvo

Test Data

The process marked with a depth of 1µm and 15-20µm with a QR code size of 1mmx1mm.

Key Features

- High power air-cooled ns laser (1W-15W air-cooled)
- Patented intracavity harmonic generation for UV and Green wavelengths
- Superior form factor as the most compact, rugged, All-in-One nanosecond laser
- Highest wall plug efficiency, low power consumption, nanosecond laser:
  - ~10% for UV, and ~17% for Green
- Short pulse widths and high repetition rates
  - Single shot up to 500 kHz
- Excellent TEM_{00} beam:
  - Typical $M^2 < 1.1$
- Superior Pulse Stability:
  - Typical < 2% rms
- Exceptional Beam Pointing Stability:
  - < 20 µrad
- Advanced software GUI controls
  - PEC (Power or Pulse Energy Control)
  - Duty Control for ultimate adaptability to production needs
  - Remote diagnostic/"no-touch" calibration

Main Headquarters: 1800 Ocean Ave, Ronkonkoma, New York 11779, United States

Photonics Industries International is the pioneer of intracavity harmonic lasers and is at the forefront of developing, manufacturing and marketing a wide range of nanosecond, sub-nanosecond, picosecond and femtosecond lasers for industrial, scientific, defense, and medical industries. Check out our products and see how we can help you apply our lasers to your needs.

LASER RADIATION

Photonics Industries International, Inc.

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Rayture Systems

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