

**LASER DAMAGE THRESHOLD SPECIFICATION SHEET
AND CERTIFICATE OF COMPLIANCE**

DATE: October 1, 2020

CUSTOMER: Perkins Precision Developments, LLC

ADDRESS: 4110 North Valley Drive
Longmont, CO 80504

P.O. NUMBER: 20-3088

ATTN: Jay Perkins

PART ID: P20-438

TEST TYPE: Laser Damage Threshold

QUANTITY: 1 (on Hypotenuse)

TEST LOG NUMBER: 67456

SUBSTRATE MATERIAL: 9 mm PBS Cube

SAMPLE SIZE: 9 mm PBS Cube

TEST PREP: None

COATING TYPE: PR

INCIDENCE ANGLE: 45°

TEST WAVELENGTH: 1064 nm

PRF: 20 Hz

POLARIZATION: Random

TEST BEAM PROFILE: TEM₀₀

PULSEWIDTH (FWHM): 10 ns

AXIAL MODES: Multiple

SPOT DIAMETER (1/e²): 437 μm

NUMBER OF SITES: 24

TEST METHOD: Least Fluence Failure

EXPOSURE DURATION: 200 pulses/site

DAMAGE DEFINITION: Plasma, increased He-Ne scatter. Visible damage as observed with 150x Nomarski brightfield microscope.

COMMENTS: Laser damage threshold measured as 40.00 J/cm², peak fluence. Part irradiated at 40.00 J/cm² with no damage in 10 sites. See data on page 2.

Spica Technologies certifies that this sample has been exposed to the conditions described above. All test and calibration data are maintained on file. All instrument calibration is traceable to NIST.

Test conducted by

A handwritten signature in black ink, appearing to be "J. Perkins", written over a horizontal line.

18 Clinton Drive #3
Hollis, NH 03049
www.spicatech.com
603-882-8233

Test Number	67456
Run Number	P20-438
Threshold	40.00 J/cm ²

fluence	Out of	Damage	No Damage
10.00	5	0	5
20.00	5	0	5
30.00	5	0	5
40.00	5	0	5
43.00	2	1	1
50.00	2	1	1

Exposure Histogram 67456

