

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

DATE: September 30, 2020

CUSTOMER: Perkins Precision Developments, LLC

ADDRESS: 4110 North Valley Drive
Longmont, CO 80504

P.O. NUMBER: 20-3075

ATTN: Jay Perkins

PART ID: P20-533

TEST TYPE: Laser Damage Threshold

QUANTITY: 1

TEST LOG NUMBER: 67384

SUBSTRATE MATERIAL: Fused Silica

SAMPLE SIZE: ~

TEST PREP: None

COATING TYPE: HR

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: 120

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 75.00 J/cm², peak fluence. Part irradiated at 75.00 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

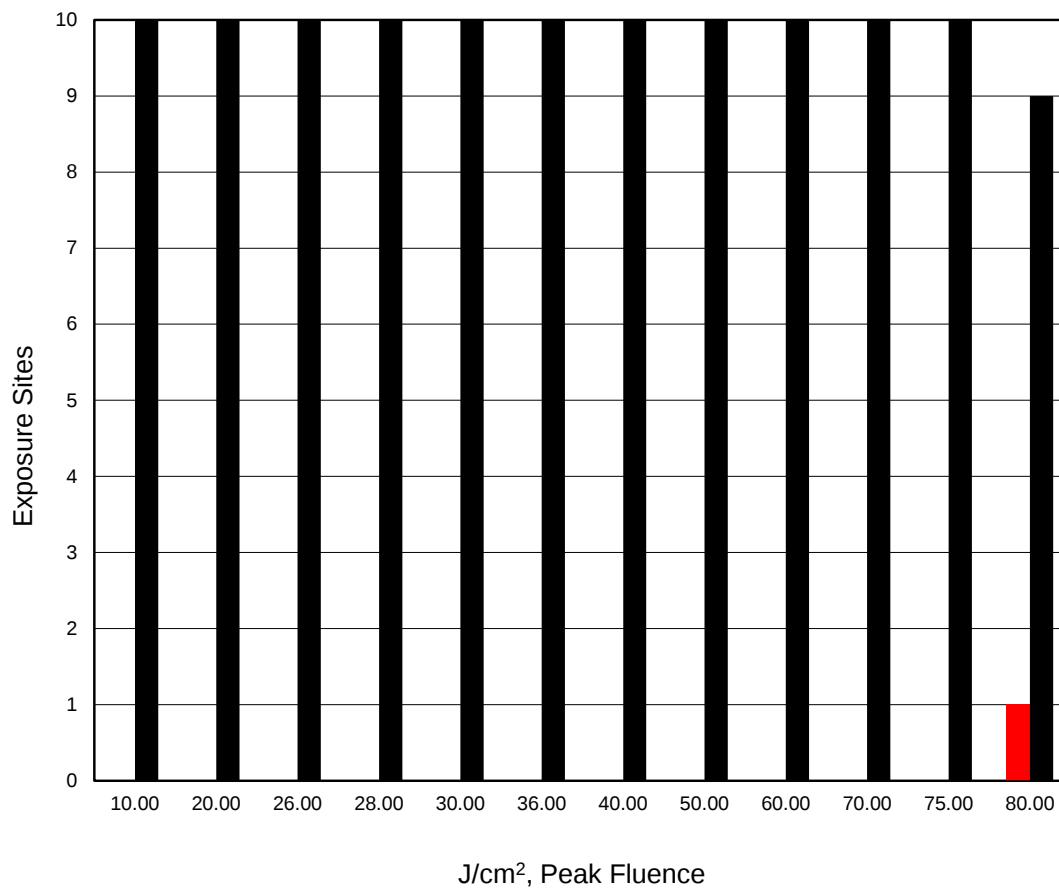
A handwritten signature in black ink, appearing to read "J. Perkins", is written over a horizontal line.

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

Test Number	67384
Run Number	P20-533
Threshold	75.00 J/cm ²

fluence	Out of	Damage	No Damage
10.00	10	0	10
20.00	10	0	10
26.00	10	0	10
28.00	10	0	10
30.00	10	0	10
36.00	10	0	10
40.00	10	0	10
50.00	10	0	10
60.00	10	0	10
70.00	10	0	10
75.00	10	0	10
80.00	10	1	9

Exposure Histogram 67384



■ Damage ■ No Damage