LASER DAMAGE THRESHOLD SPECIFICATION SHEET AND CERTIFICATE OF COMPLIANCE

DATE: March 9, 2018

CUSTOMER: Perkins Precision Developments, LLC

ADDRESS: 4110 North Valley Drive
Longmont, CO 80504

ATTN: Jay Perkins

TEST TYPE: Laser Damage Threshold

TEST LOG NUMBER: 58723

SAMPLE SIZE: ~ 1”

COATING TYPE: Not Specified

TEST WAVELENGTH: 1064 nm

POLARIZATION: Unpolarized

PULSEWIDTH (FWHM): 10 ns

SPOT DIAMETER ($1/e^2$): 438 µm

TEST METHOD: Least Fluence Failure

P.O. NUMBER: 18-2164

PART ID: P18-43

RUN NUMBER: n/a

QUANTITY: 1

SUBSTRATE MATERIAL: Fused Silica

TEST PREP: N_2 gas blow

INCIDENCE ANGLE: 45°

PRF: 20 Hz

TEST BEAM PROFILE: TEM_{oo}

AXIAL MODES: Multiple

NUMBER OF SITES: 60

EXPOSURE DURATION: 200 shots/site

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

COMMENTS: Laser damage threshold measured as 25.00 J/cm^2, peak fluence. Part irradiated at 25.00 J/cm^2 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 

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

Test Number	58723
Run Number	P18-43
Threshold	25.00 J/cm²

fluence	Out of	Damage	No Damage
10.00	10	0	10
20.00	10	0	10
25.00	10	0	10
30.00	10	1	9
40.00	10	0	10
50.00	10	2	8