

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

DATE: June 7, 2018

CUSTOMER: Northrop Grumman Synoptics

P.O. NUMBER: 545778

ADDRESS: 1201 Continental Blvd.  
Charlotte, NC 28273

PART ID: A1000

ATTN: Tri Tiet

LOT NUMBER: F3747

TEST TYPE: Laser Damage Threshold

QUANTITY: 1

TEST LOG NUMBER: 59362

SUBSTRATE MATERIAL: YAG

SAMPLE SIZE: ~

TEST PREP: Methanol drag

COATING TYPE: Not specified

INCIDENCE ANGLE: 0°

TEST WAVELENGTH: 1064 nm

PRF: 20 Hz

POLARIZATION: Random

TEST BEAM PROFILE: TEM<sub>00</sub>

PULSEWIDTH (FWHM): 20 ns

AXIAL MODES: Multiple

SPOT DIAMETER (1/e<sup>2</sup>): 444 μm

NUMBER OF SITES: 60

TEST METHOD: Least Fluence Failure

EXPOSURE DURATION: 200 shots/site

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

COMMENTS: Laser damage measured as 55.00 J/cm<sup>2</sup>, peak fluence. Part irradiated at 55.00 J/cm<sup>2</sup> with no damage in 10 sites. See 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 "W. J. ...", is written over a horizontal line.