

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

DATE: August 29, 2017

CUSTOMER: Northrop Grumman Synoptics

P.O. NUMBER: 543405

ADDRESS: 1201 Continental Blvd  
Charlotte, NC 28273

PART ID: F0874-1-C16

ATTN: Jennifer Bradshaw

DESIGN NUMBER: A1500

TEST TYPE: Laser Damage Threshold

QUANTITY: 1

TEST LOG NUMBER: 57463

SUBSTRATE MATERIAL: Nd:YAG

SAMPLE SIZE: ~

TEST PREP: N<sub>2</sub> Blow

COATING TYPE: Not specified

INCIDENCE ANGLE: 0°

TEST WAVELENGTH: 1064 nm

PRF: 20 Hz

POLARIZATION: Linear

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

PULSEWIDTH (FWHM): 20 ns

AXIAL MODES: Multiple

SPOT DIAMETER (1/e<sup>2</sup>): 428 μm

NUMBER OF SITES: 55

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 threshold measured as 83.00 J/cm<sup>2</sup>, peak fluence. Part irradiated at 83.00 J/cm<sup>2</sup> 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 