

Fiber Optic Instrumentation for Use with Microwave Ignitor

STATEMENT OF WORK

1. Objective/Requirements

NASA Marshall Space Flight Center (MSFC) requires the capability to test and measure the data of a novel microwave ignitor system. The use of fiber optic instrumentation severely reduces any risk of electromagnetic interference (EMI) to both instrumentation and facility computer systems. This effort is in support of the center's Advanced Space Propulsion Formulation Task.

2. Engineering Requirements

- a. Fiber optics sensors capable of reading both temperature and pressure a single sensor.
- b. Being able to withstand up to 500 psi
- c. Being able to withstand transient temperatures up to 1500°C
- d. Resistance to EMI
- e. Integrator able to convert optical signal into a electric signal readable by a computer
- f. Any software associated with operation of instrumentation.
- g. Fiber optical cable from test article to test bed instrumentation bed.

3. Shipping:

Contractor shall ship all deliverables to:
Marshall Space Flight Center
Huntsville, AL 35812

4. Deliverables

1. NovaPT™-E600, Quantity 4
2. Fasedyne-1000-4-custom, Quantity 1
3. Optical fiber cable, Quantity 4
4. Lead Time: 10 Weeks