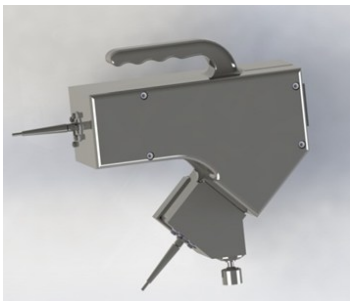
RAMAN - SORS

SYSTEM CONTROLS
Versatility is reality

Spatially offset Raman spectroscopy (SORS) is a spectroscopic technique that allows for the non-invasive chemical characterization of diffusely scattering materials, ranging from opaque plastics to biological tissues. The conventional Raman spectroscopy provides fingerprint signatures of material under test but is not capable of detection through opaque containers. In real scenario of screening of materials at airports, railway stations and other vital sites, material has to be detected through different types of containers and packages like coloured glass & plastic transparent bottles, HDPE bottles, tetra packing etc.



Part No: SC-SYS-SORS-A-00-000

APPLICATION AREAS

- ◊ Energy Technology
- ◊ Forensics
- ◊ Life sciences
- ◊ Pharmaceuticals
- ◊ Analyzing carbon materials

Technical Specification

Parameter	Probe at 532 nm laser wavelength	Probe at 785 nm laser wavelength
Transmitting wavelength	532 nm	785 nm
Receiving wavelength range	530 –635 nm	780 –1050 nm
Optical layout	Co-axial/ bi-axial	
Diameter of receiving optics	25 mm	
Focusing/ collection spot	~ 100 µm	
Offset form	Laser beam in ring form and ring should be co-centric with collection spot	
Offset range	Ring radius should be variable from 0.5 mm to 20 mm with step of 0.5 mm at a distance of 25 mm approximately.	
Length of both coupling fibers i.e. at transmitting and receiving ends	≤ 1 m	

SERVICES

- ♦ Engineering Design & Development
- ♦ System Integration
- ♦ Electronic testing & Assembly
- ♦ CNC Machining & Manufacturing

SYSTEM CONTROLS TECHNOLOGY SOLUTIONS

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