Ramboss Star I Micro Raman / PL

Key Features

- Easy to Combine with Customer Microscope
- Inverted Type of Microscope Available
- Single Molecule Detection Possible

Application

- Stress Evaluation of Silicon (Si) from the Compressive Tensile Depend on the Direction of Stress in Lattice Structure with Raman Shift
- Characterization of Amorphous Silicon & CIGS Solar Cell / Quantitate the Component Concentration
- Characterization of Graphene on SiC
- Raman Spectra of Variable Carbon Materials
- Flexible LCD with CNT Clear Electrode
- Development of Bio Sensor Thro Au Ball
- Thin Film Solar Cell Crystallization (a-Si, c-Si)
- Dark Field and Raman Scattering Imaging
- Single Molecule Spectroscopy

Specification

Excitation Source

Wavelength	266 / 325 / 532 / 632.8 / 785 / 1064 nm (Up to 6 Different Laser)
Polarization	>500 : 1 Linear
Output Power	18 / 50 / 90 / 100 / 200 mW

Spectrograph

Spectral Range	320 mm / 500 mm (Two Exit Port)
Raman Shift Range	0.09 nm
Spectral Resolution	<2 cm - 1 @ 633 nm
Stray Light Rejection	1.0 * 10^-5

Sample Chamber

Microscope	Olympus , Zeiss, Nikon Series

Detector

Type	TE Cooled CCD (Open Electrode)
Pixel Format	1024 * 256
Quantum Efficiency	59 % @ 750 nm
Dark Current	0.0005 e- / Pixel / sec

Software

Solis & Monoworks	User-friendly Interface for Simultaneous Detector & Spectrograph Control

Ramboss Sports I Micro Raman / PL

Key Features

- All in One System With Olympus Body Frame
- Monochromator & Microscope Involved
- Software Controlled ND Filter Set for Beam Power

Specification

Input Laser Source

532 nm Solid State Laser set Output Power	200 mW @ 532 nm
632.8 nm He-Ne Laser set Output Power	18 mW @ 632.8 nm
785 nm Stabilized Laser set Output Power	90 mW @ 785 nm

Sample Chamber

Microscope	Olympus Microscope Body Frame with Eye Pieces
	Dichroic Filter Including Control Box
	5 Position Revolving Nose Piece
Spectral Range	VIS - NIR
Multiple Objective Lenses	5 x ~ 100 x
Beam Spot Dia.	<1 um @ x 100 Objective Lens
Automation	Software Controlled ND Filter set to Adjust Input Beam Power on Surface
	Range (UV - NIR : 300 ~ 1100 nm)
	Transmission (0.1 % ~ 93 %)
	Optical Path & Alignment Adjustable Function through Filter Wheel
Vision Camera	Sample Image & Laser Spot Monitoring
Optics	Free Space Beam Delivery System (Optional Fiber Connection)
	Long Pass Edge Filter & High Performance Mirror Assembly
True Confocal Module	Motorized & Temperature Controlled Stage

Spectrograph

Focal Length	193 mm
Wavelength Range	200 ~ 1000 nm (UV - VIS)
	900 ~ 1700 nm (NIR)
Resolution	0.1 nm @ 435.8 nm 2400 gr/mm Grating 10 um Slits <2 cm - 1 @ 785 nm 2400 gr/mm

CCD Detector

CCD Detector	1024 * 256 Pixel CCD
	26 * 26 um Pixel Size
	200 ~ 1000 nm Detecting Range (95 % @ 800 nm)

Software

Features	Easy Parameter Selection
Functions	Select Monochromator, Serial Port , Turret, Grating & Current Wavelength Information, Wavelength Range, Number of Point / Resolution, Integrating Time, Accumulation
Calibration	Semi-auto Calibration