

Optical Spectrum Analyzer

The EagleEye Optical Spectrum Analyzer (OSA) is a compact unit for measuring the spectral characteristics of lasers. The EagleEye consists of a stable INVAR[®] based confocal high finesse cavity. The cavity can be utilized as a scanning Fabry-Perot interferometer to examine CW laser mode spectra. Additionally, the cavity can be actively locked to a laser line for high-resolution laser frequency analysis. Laser linewidth of as low as 20 kHz can be measured.

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General Characteristics

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Cavity	
1.5 G	z Free Spectral Range
Maxi	num Finesse > 300
INVA	[®] construction
User-	nterchangeable Optic Sets
Broad	band Coatings (Standard: 500 nm 1100 nm)
Integ	ated Mount for Neutral Density Filters
Detector	
Visib	e 300 nm 1100 nm
Infra	ed 800 nm 2600 nm
Band	vidth 300 kHz
Integ	ated Variable Gain Amplifier
Singl	Connector to Controller Rack
Controlle	
DSP E	ased Controller Board
Full S	peed USB 2.0 port
Samp	ling Rate Up to 250 kHz
Reco	ding Times 1 s, 100 ms, 60 ms
Optic	nal External Control of Piezo Voltage
Software	
Laser	Linewidth Resolution Limit < 20 kHz / 100 msec
LabV	EW Based Control Software
Imme	diate Calculation of Laser Linewidth
Fouri	r Transform of Frequency Noise
Intuit	ve Operation

Requirements

Computer Control	Windows XP / Vista / 7 / 8 / 10, USB-Port
Voltage	110 230 V





EagleEye



Detector Head Dimensions



All Dimensions in mm Specifications are subject to change without notice



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