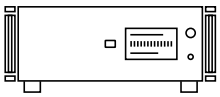


Linewidth Analyzer

LWA-100k NIR

HighFinesse
The Standard of Accuracy

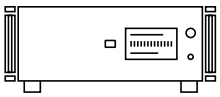
Analyzer Unit

Input	min.	max.	typ.
Wavelength range [1]	1064 nm	1625 nm	1550 nm
Input power range	0.5 mW	8 mW	5 mW
Input power stability	± 5 %		
Laser type	CW, single-mode		
Input type	FC/APC		
Scan stroke (@ fscan > 10 Hz)	—	100 MHz	

Sample Frequency Noise Specification for Different Frequency Ranges [2]	10 Hz	100 Hz	1 kHz	10 kHz	100 kHz	> 1 MHz
Noise floor (Hz/√Hz)	1000	200	60	50	40	25
Minimum intrinsic linewidth (Lorentzian linewidth)	< 10 kHz					
Effective linewidth range (β-separation)	< 15 kHz – 100 MHz					
Dynamic range	60 dB					

1) For customized wavelength ranges please contact: service@highfinesse.de

2) Specified for 5 mW input power at a wavelength of 1550 nm.



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Lineshape Specification

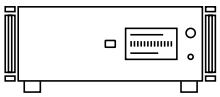
Effective linewidth range (optical linewidth) [curve fitting method]	< 15 kHz – 10 MHz
Dynamic range	60 dB
Frequency noise bandwidth	10 Hz – 10 MHz

Miscellaneous

Interface	Ethernet
Analog output	± 7.5 V (50 Ω)
Dimensions	440 × 340 × 155 mm
Weight	12.0 kg

Digitizer Module

Sample rate (Sa/s)	62.5 M
Resolution	16 bits
Acquisition time	1 ms – 100 ms
Evaluation time	10 ms – 1 s
Interface	USB 3.0 type B
Dimensions	210 × 200 × 74 mm
Weight	2.0 kg



Linewidth Analyzer

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Software

Operating system	Microsoft® Windows® 10, 64 Bit
CPU (minimum)	Intel® Core™ i5 or equivalent
Memory (minimum)	8 GB
Graphical evaluation options	Frequency noise density spectrum, lineshape spectrum, intrinsic (Lorentzian) linewidth, effective (optical) linewidth

Further Information

For further technical information, application examples, diagrams and for customisation of linewidth analyzers please contact:

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