Wavelength Meter

WS Fast Series

HighFinesse
Laser and Electronic Systems

Ångstrom

	WS6-600 VIS Fast	WS6-600 IR Fast	WS6-200 IR Fast
Available measurement ranges (QE > 60%)	380 – 1050 nm	980 – 1650 nm	980 – 1650 nm
Absolute accuracy	600 Mhz	400 Mhz	200 Mhz
Quick coupling accuracy	600 Mhz	600 Mhz	600 Mhz
Wavelength deviation sensitivity	20	20	4
Live calculation speed [1)]	3000 Hz	3000 Hz	3000 Hz
Measurement rate	24000 Hz	76000 Hz	76000 Hz
Minimum exposure time	41.6 µs	6 µs	6 µs
Maximum exposure time [2)]	3.3 ms	9 ms	9 ms
Minimum required input energy and power	7 µW / 0.29 nJ @ 532 nm	1 mW / 6 nJ @ 1532 nm	1 mW / 6 nJ @ 1532 nm
Fizeau interferometers (FSR)	16 GHz/100 GHz	16 GHz/100 GHz	16 GHz/100 GHz
Calibration	Stabilized HeNe laser or any other well known laser source Δν < 150 MHz	Stabilized HeNe laser or any other well known laser source Δν < 150 MHz	Stabilized HeNe laser or any other well known laser source Δν < 40 MHz
Recommended calibration period	1 month	1 month	1 month
Warm-up time	30 min	30 min	30 min
Dimensions	432 × 144 × 144 mm	432 × 144 × 144 mm	432 × 144 × 144 mm
Weight	3.5 kg	3.5 kg	3.5 kg
Interface	USB 2.0 and GbE	USB 2.0 and CL	USB 2.0 and CL
Power supply	External 12 V	External 12 V	External 12 V

1) Depends on PC and measurement mode

2) Depends on gain mode

Options

External Trigger (TTL)

All wavelength meters detect and measure pulsed signals automatically. Additionally, this option allows the user to trigger pulsed measurements externally. The TTL option guarantees synchronization between pulsed excitation and measurement It provides low-noise signals without parasitic parts when measuring pulsed signals with low duty cycles.

Linewidth Estimation (L)

The linewidth estimation of a singlemode laser source is performed by a special algorithm which eliminates the interferometer's instrument response function. The algorithm enables the estimation of the linewidth with an accuracy better than the tenth of the device FSR.

The linewidth option can also be used for measuring the linewidth of multimode lasers or lasers with sidebands. In this case, the longitudinal mode splitting needs to be less than the instruments spectral resolution and the calculated result is the FWHM of the envelope function of the multiline spectrum. Any instrument can be upgraded with the L-option, except IR-III devices. Singlemode fibers are required.

Typical Applications

The WS Fast Series offers excellent accuracy combined with maximum data acquisition rate up to 76 kHz. Even fast dynamics in the kHz range can be measured this way. Different measurement modes enable the user to record or view the frequency behaviour of the light source.

Further Information

For further technical information, application examples, diagrams and for customization of the WS Fast series please contact:

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