



RAM Photonics

QuantoPhase™

Digital Shearing Wavefront Sensor



QuantoPhase™ wavefront sensors provide precision wavefront sensing solutions for optical metrology and laser beam characterization. Our patented wavefront sensing technology provides robust and affordable devices with customized wavelength range with the *lowest cost per resolvable sample*.

Key features:

- Amplitude + phase
- Zernike/Legendre coefficients
- Up to 512 x 512 sampling
- 100 λ dynamic range
- $\lambda/100$ precision & rms accuracy
- Real-time beam propagation

Applications:

- Wavefront measurement
- Adaptive optics
- Laser beam characterization
- Lens characterization
- Laser beam collimation
- SDK for C++/MATLAB

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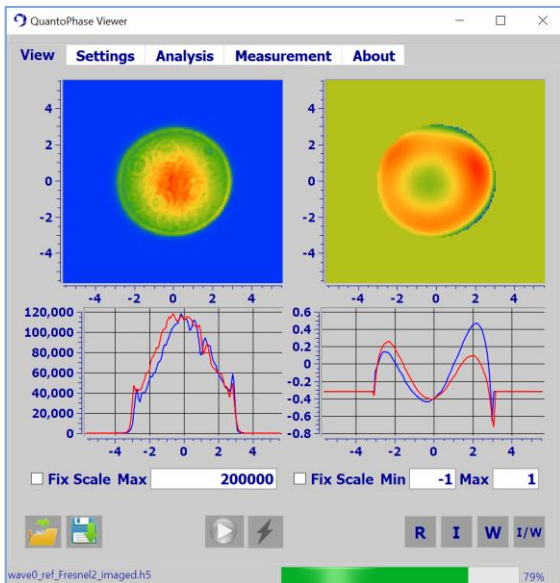


Specifications:

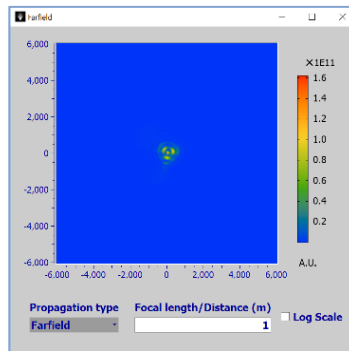
Due to our continuous improvement program, specifications are subject to change without notice.

	Standard	Options / Comment	Unit
Spatial Resolution	42	λ dependent	μm
Sampling⁽¹⁾	16 x 16 to 512 x 512	User selectable	-
Precision and RMS Accuracy	$\lambda / 100$	-	-
Dynamic Range	100 λ	-	-
Operational Wavelengths⁽²⁾	532 & 1064 \pm 100	Customizable	nm
Detection Area	11.3 x 11.3	-	mm ²
ROC Dynamic Range	≥ 0.03	smallest measured	m
Acquisition Rate⁽³⁾	4-10	Externally triggerable	Hz
Communications Interface	USB 3.0	-	-
Operating System	Windows 7 or 10	-	-

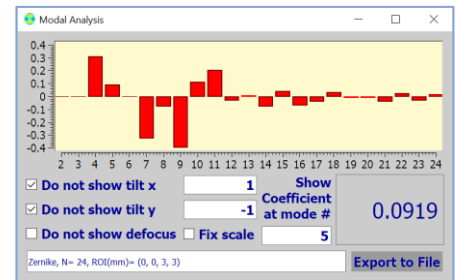
- (1) Numerical sampling; Nyquist sampling matched to the physical spatial resolution is 269 x 269. See application note.
- (2) Limited by silicon response ($\leq 1080\text{nm}$).
- (3) At 128 x 128 sampling. Faster at smaller sampling. Will vary depending on user computer system.



Dual view (Intensity/wavefront) window



Beam propagation window



Modal (Zernike) analysis window