Verifire™ HDX LASER INTERFEROMETER

High-Resolution Imaging for Mid-Spatial Frequency Metrology
ULTRA-HIGH RESOLUTION FOR PRECISION MID-SPATIAL FREQUENCY CHARACTERIZATION OF HIGH PERFORMANCE OPTICS

The Verifire™ HDX interferometer is specifically designed for metrology of optics and systems for high and extreme performance applications.

Key features:
• Low-noise, high-speed 11.6 megapixel sensor running at 96 Hz
• Optimized optical design for pixel-limited performance results in industry leading spatial resolution and ITF
• High power, long lifetime HeNe laser source, backed with a 3-year warranty standard
• Vibration-tolerant acquisition technologies enable a wide range of metrology environments and test setups

DESIGNED FOR OPTIMAL RESOLUTION AND PERFORMANCE
Core to the Verifire HDX interferometer is a new optical design which delivers unmatched instrument transfer function (ITF) and increased spatial resolution for superior characterization of mid-spatial frequency (MSF) surface components and high slope surface deviation. Loaded with standard features, like a low-noise, high-speed 11.6 megapixel sensor, the Verifire HDX system sets a new benchmark for best-in-class optical metrology and MSF characterization.

INDUSTRY-LEADING RELIABILITY AND ROI
Our instruments are designed for ultimate uptime and reliability, maximizing your investment and minimizing your maintenance costs. The HeNe laser source is manufactured in-house and designed for unmatched performance – lifetime of >60,000 hours, backed by the industry’s first 3-year warranty, and high power delivering improved light efficiency.

PROVEN METROLOGY IN CHALLENGING ENVIRONMENTS
With our patented QPSI™ and DynaPhase® vibration-tolerant acquisition technologies, achieving precision metrology under adverse conditions and extreme environments is routine. QPSI technology, suitable for most environments, enables high precision on-axis measurements without the need for calibration. For test setups with extreme vibration and turbulence, DynaPhase acquisition is the ideal solution for lowest uncertainty metrology.

SUPERIOR REFERENCE OPTICS AND ACCESSORIES
A full range of ZYGO-designed and manufactured reference optics and accessories ensure the highest confidence in metrology, including our UltraFlat™ reference optics certified at 1/40th wave or better. Additionally, we offer customized solutions to address a wide range of metrology needs and applications.
ZYGO’s Mx™ software platform provides full control of the instrument, data acquisition, and analysis. The intuitive interface provides simple navigation and access to 100s of reportable parameters. Advanced analysis tools such as Zernikes, PSD, Corner Cube, Diffraction, PVr, Slopes, and many more are all standard, along with flexible features like scripting and remote access for integrating an interferometer into a larger test setup.

Offering the broadest and most reliable optical metrology solutions in the industry for more than 45 years! See why ZYGO is the most trusted brand of laser interferometer today.

Metrology without compromise.