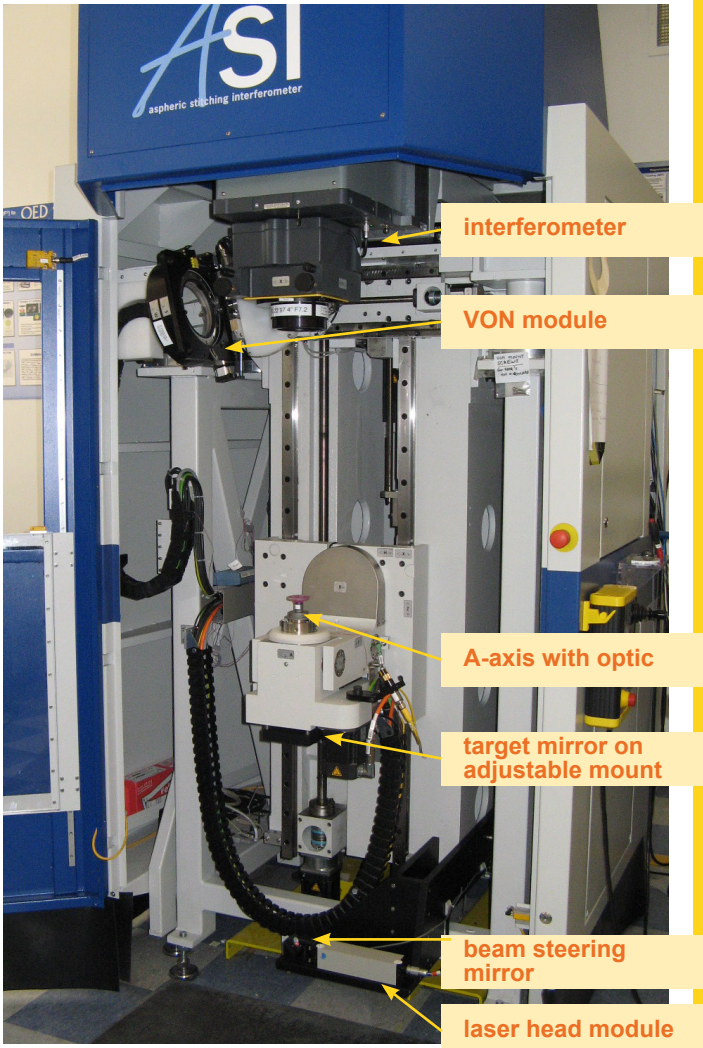
QRc

radius of curvature measurement system using a laser-based DMI

The QRc radius measurement system from QED Technologies is an optional feature that enables precise measurement of the radius of curvature using a laser displacement measuring interferometer (DMI). When combined with the QED metrology systems's 820 mm Z axis stage, the QRc can provide robust radius measurements right on the the plant floor. There is no longer a need to remount your optic on a separate linear scale system. As you might expect from QED, we integrate the system directly into any QED metrology platform so it operates seamlessly with the QED.NET software. This means you can get precision Rc measurements quickly, easily, and best of all, it happens automatically. The QRc is available for any QED metrology system using QED.NET software.



Product Benefits

- Unlike other DMI systems that collect just the vertex measurement, the QRc measurement is calculated using the full aperture of the surface using filtered or high resolution data.
- QRc measurements are not a separate process!
  - They occur *automatically* during the regular stitching analysis.
  - They save the time and expense of alternate measurement steps.
- Built in environmental compensators adapt to acceptable plant floor *temperature, pressure and humidity changes.*
- A single laser beam measures the position of the optic directly underneath the A-axis spindle, making the measurement *insensitive to error motions of the Z-axis* (i.e., Abbé errors).

Performance Specifications *

Transmission Element	Accuracy **	Repeatability 1σ **
2.2	2 μm or 0.002%	0.1 μm or 0.0001%
3.3	3 μm or 0.002%	0.15 μm or 0.00015%
5.3	5 μm or 0.002%	0.9 μm or 0.0003%

* Subject to change.
** Whichever is greater. TEs are 6" or equivalent.

- All accuracy and repeatability measurements require average vibration and environmental conditions. Change in temperature ≤ 1 degree F / 15 minutes, QED reference. Data was taken on ASI operating in uncontrolled QED demo room.
- All data per QED test methods, including reasonable averaging if operating QRc in a noisy environment.
- QED specifications are verified onsite using a single reference optic, R265mm f/2.2 and/or f/3.3 transmission element. Any other testing requires a quotation and availability of customer certified standards.
- All specifications assume unstitched, center null position only.
- All specifications are for spherical optics.

Reference ASI(Q) document MKT1051 for additional information.

With QED's QRc, you can get precision radius of curvature measurements, quickly, easily and best of all, it happens automatically.

QED Technologies

North America Sales
+1 978 460 8004
sales@qedmrf.com

Europe Sales
+33 6 31 20 33 87
sales_europe@qedmrf.com

Japan Sales
+81 59 212 0911
sales_japan@qedmrf.com

Korea Sales
+82 10 8910 9457
sales_korea@qedmrf.com

Rest of Asia Sales
+8618802122555
sales_asia@qedmrf.com