VSM Kerr Magnetometer Option (MOKE) with Polar and Longitudinal Measurement

BENEFITS OF THE VSM MOKE OPTION

- Capable of both polar (perpendicular) and longitudinal (in-plane) Kerr measurements
- High speed (1 minute measurement, typical)
- High sensitivity (up to 10x greater than VSM)
- Extremely flexible: users can switch between Kerr and VSM measurements in < 30 s

The VSM Kerr option is a high speed, high sensitivity magneto-optical measurement system designed to work seamlessly with both existing and new MicroSense EZ VSMs.

Building on the class-leading measurement capability of the MicroSense VSM line and more than 20 years of experience building Kerr Magnetometers, the Kerr option provides the user with greatly enhanced functionality:

- **10-40x faster measurement speeds than a VSM**
- **Up to 10x greater sensitivity than a VSM**
- The ability to measure low moment non-continuous (patterned) thin films and very thin continuous films.
- Measurement of the free sample layer independent from the magnetic underlayers (not possible with any bulk measurement technique, such as VSM)
- No susceptibility to background signal or requirement for background signal correction

The MOKE option is easy to install and use. Initial installation on the VSM takes less than 2 minutes and there is no need for the user to remove the whole option to make VSM measurements again. Simply remove the center cartridge, load your VSM sample, and swing the vibrator into place. The whole process takes *less than 30 seconds.* Plus, the Kerr fits in the standard 17mm oven gap so that no adjustments to the magnet poles are required and the VSM calibration is not impacted.

Switching between samples and measurement modes is just as easy. The VSM Kerr has been designed to require as little user adjustment as possible to swap between samples and measurement modes.

Specifications			
Measurement Time	Adjustable from ~ 10 s up. Up to 1000 points/second		
Typical Measurement Time	<1 minute.		
Initial Option Installation Time	< 2 minutes		
Switching Time (Polar to Long. or reverse)	<5 minutes		
Switching Time (VSM To Kerr or Kerr to VSM)	<30 s		
Temperature range	Room temperature only		
Spot size	~ 1x1.5 mm		
Scanning over sample surface	Manual only (you can move the sample within the space constraints shown below		
Max Sample Dimensions [mm] Polar/Perpendicular measuement	14x14x1 (LxWxThickness)		
Max Sample Dimensions [mm] In plane measurement	10x14x0.7 (LxWxThickness)		
System Compatibility	EV5,EV7,EV9,EV11, EZ7,EZ8,EZ9,EZ11 Model 10 VSM		
Maximum Field EV series	**EV7**	**EV9**	**EV11**
	1.7	2.2 T	2.6T
Maximum Field EZ VSM series	**EZ7**	**EZ9**	**EZ11**
	1.8T	2.3T	2.7T
Max Field with Model 10	2.0 T /2.3 T		

MOKE option in place

The picture to the right shows the MOKE option with the center cartridge removed so that regular VSM measurements can be done.

Alternatively the whole option can be removed in ~1 minute

Specifications are subject to change at any time without notice.
For more information on MicroSense VSM systems please visit http://www.microsense.net/products-vsm.htm