SMALL IN SIZE AND PRICE, BIG IN PERFORMANCE

STM-2 combines the simplicity of USB connectivity with the accuracy of a precision measurement engine, all in a compact, inexpensive package. The size and simplicity of STM-2 help make setup and operation easy and efficient.

SUPERIOR PERFORMANCE

STM-2 is the most accurate USB powered thin film monitor in the industry. Ten measurements are taken per second while achieving a resolution of 0.037 Å per measurement.

EASY AND FLEXIBLE INSTALLATION

STM-2 comes with everything you need to connect a QCM sensor/feedthrough to a Windows® computer. Up to eight STM-2s monitoring up to eight sensors can be connected to a computer simultaneously.

To setup STM-2, simply connect the included BNC cable from the feedthrough to STM-2, then connect STM-2 to a computer using the included USB cable. No external oscillator or power supply is required.

STM-2 features an internal oscillator that allows for a simple and cost effective installation when STM-2 is located within 1 m (40 in.) of the quartz crystal. A standard INFICON oscillator kit can also be used for applications where STM-2 must be located farther away from the feedthrough.

STM-2 SOFTWARE

STM-2 includes LabVIEW™ software, capable of simple operation and data logging. Windows software is also included for operation and data logging of up to eight STM-2s.

FEATURES AT A GLANCE

- Low cost QCM monitor
- USB connection
- Internal oscillator
- High accuracy at 10 measurements per second
- Compatible with an external oscillator

STM-2—A SIMPLE QCM

Figure 1 shows a typical STM-2 thin film deposition system. A complete QCM system consists of STM-2, a sensor, feedthrough, a computer, and crystals.
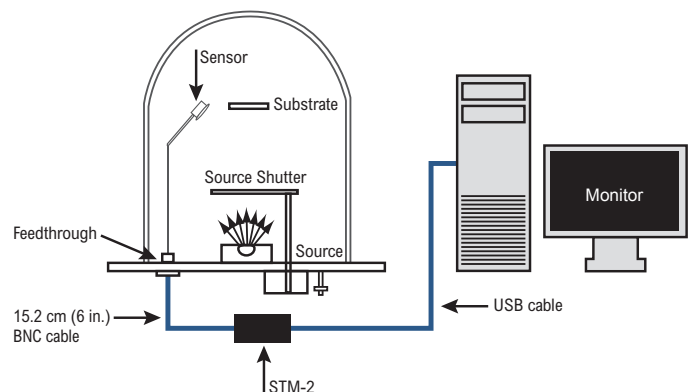

Figure 1: Typical STM-2 installation

SPECIFICATIONS

Compatible sensors	Non-shuttered single QCM sensor
Sensor input	One, female BNC
Measurement frequency range	6.0 to 5.0 MHz (fixed)
Frequency resolution	±0.03 Hz at 6 MHz
Measurement Interval	0.10 s
Reference frequency stability	±2 ppm
Thickness and Rate resolution/measurement[1]	±0.037 Å
Thickness display resolution	1 Å (display on software only)
Interface	USB, v1.1 or later capable of providing 400 mA, 5 V (dc)
Size	11.4 x 7.6 x 2.5 cm (4.5 x 3 x 1 in.)
Weight	57 g (2 oz.)
Computer requirements	Windows 2000, Windows XP, Windows Vista, Windows 7, or Windows 8 with one available USB 1.1 (or later) port for each STM-2

[1] Tooling/density = 100/1, fundamental frequency = 6 MHz

ORDERING INFORMATION

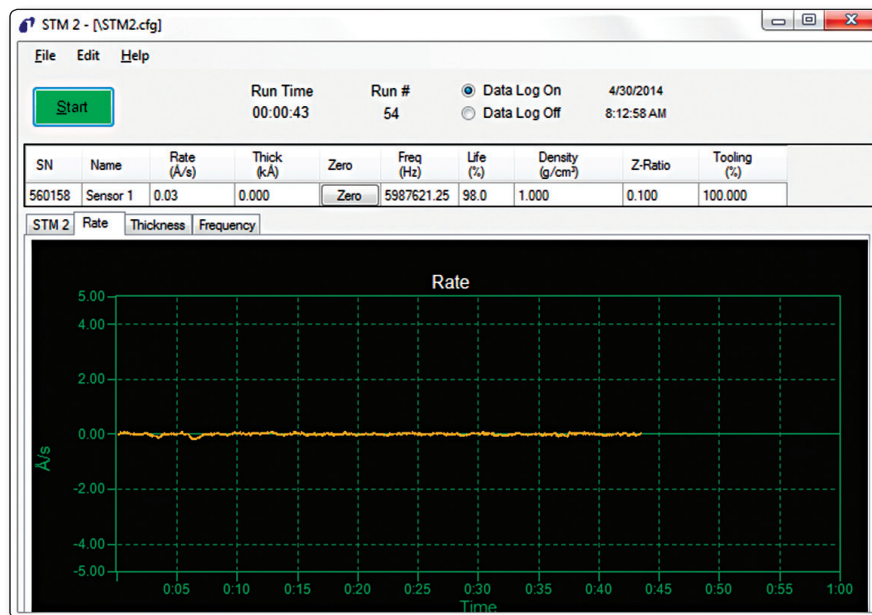| STM-2	STM-2 Deposition Monitor, includes:
	• Windows software applications
	• 15.2 cm (6 in.) BNC cable (connects STM-2 to the feedthrough)
	• 5 m (16.4 ft.) USB cable (connects STM-2 to your computer)

Figure 2: STM-2 Windows software