

## Crystal Monitor

The Crystal Monitor panel controls the Trovato 4-channel crystal monitor and performs the QCM calculations for those channels. The Lifex (where  $x$  is 1-4) is a simple lifetime calculation of the percentage of frequency with 6.0 MHz being 100% and 5.0 MHz being 0%. It is generally recommended that crystals with a life percentage less than 80% be replaced. The green OK1-OK4 LEDs are a quick indicator of the crystal status. The LED shows green when a crystal is reading properly and red when it is not reading properly. Sample Update selects the time in milliseconds between channel samples.



All 4 channels are sampled simultaneously. If the Raw Data is not updating on a regular basis pressing the green ON next to the Sample Update selector will interrupt the sampling and enable the Init button. Pressing the Init button will initialize the communication channel to re-establish communications with the crystal monitor.

## QCM Plotter

The QCM Plotter panel provides a visual display of the deposition rate of up to 4 QCM channels. The SELECT button allows the operator to select any or none of the QCM channels. The displayed rate can either be RAW or FILTERED data. The display can be scaled using the menu select box located above the chart. Named settings can be created using the Program Settings menu. Program Settings are used to display selected channels for various depositions. So if you only



want to view one channel you can create a named setting with only that channel visible. The Program Settings selections include: Load, Save, Save As, Delete, and Rename. Load will read in the parameters that were saved previously. Save will save the new values to the current setting name. Save As will create a new setting with the name selected by the user. Delete will delete the settings from the list. Rename allows the user to change the name of a saved setting. NOTE: This dialog should be

closed periodically to clear the history buffer.