Application Note

The 1865 Average Function

The average mode on the 1865 Megohmmeter / IR Tester often creates some confusion as to how it works and what effect it will have on measurement time. The average is a "boxcar". It averages the number of measurements selected in the setup and displays the result. The 1865 instrument then averages in the next measurement (N+1) and drops the oldest measurement in the series. This continues until the measurement time has been reached. This method is sometimes referred to as a “rolling average”.

The time required for an average measurement is much less than expected. A normal measurement "time" includes the actual measurement and lots of instrument overhead such as screen updates and other necessary functions. The actual measurement time is quite short with respect to this measurement "time". When an average is selected, most of the overhead functions are ignored and all the measurements proceed rapidly. Figure 1 illustrates the total measurement time that is required for a given number of averages.

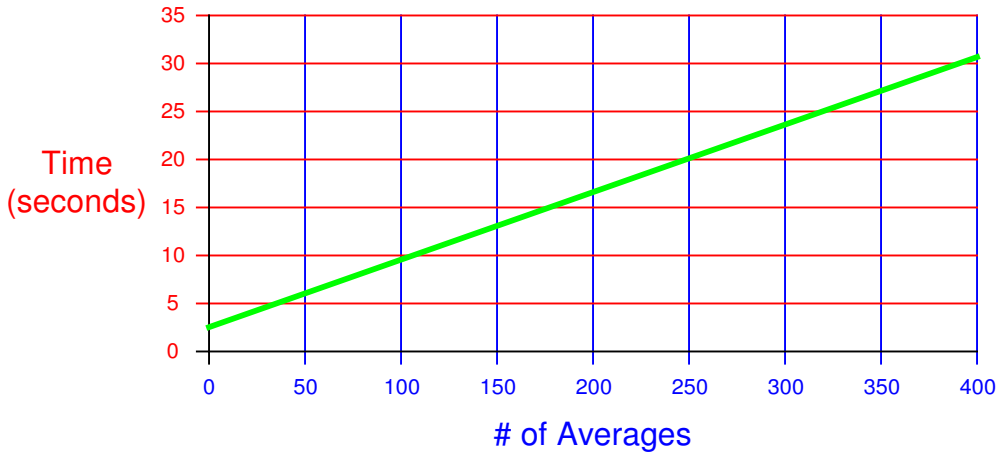

Figure 1: Total Measurement Time per # of Averages

For complete product specifications on the 1865 Megohmmeter/IR Tester or any of IET Labs’ products, visit us at www.ietlabs.com. Do you have an application specific testing need? Call us at 1-800-899-8438 or email your questions to sales@ietlabs.com and we’ll work with you on a custom solution.

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