IET LABS, INC.
www.ietlabs.com
1 Expressway Plaza - No 120 - Roslyn Heights - NY - 11577
TEL: (516) 334-5959 - (800) 899-8438 - FAX: (516) 334-5988

SUBJECT: TEFLON STANDARD, TS-100, USE

1.) THIS STANDARD HAS BEEN LAPPED FLAT AND PARALLEL, WITHIN 50 MILLIONTHS, IT'IS ALSO EXTREMLY SMOOTH.

2.) HANDLE WITH CARE.

3.) CLEAN IF NECESSARY, USE A LOW RESIDUE SOLVENT. (LABORATORY GRADE).

4.) PLACE TEFLON STANDARD IN BETWEEN THE ELECTRODES OF THE LD-3. CENTER AS WELL AS POSSIBLE.

5.) CLOSE THE ELECTRODES SNUG, BUT NOT TOO TIGHT, OR YOU WELL DAMAGE THE MICROMETER ADJUSTMENT AND CALIBRATION.

6.) NOW MEASURE THE CAPACITANCE OF THE TEFLON AND RECORD THE RESULTS.

_____pF.

7.) DO NOT DISTURB THE MICROMETER SETTING.

8.) LOOSEN THE THREE SCREWS (ALLEN CAP.) HOLDING THE MICROMETER ASSEMBLY.

9.) REMOVE THE TEFLON STANDARD, (TIP THE CELL IF NECESSARY).

10.) NOW, TIGHTEN THE THREE SCREWS HOLDING THE ASSEMBLY.

11.) MEASURE AND RECORD THE CAPACITANCE, OF THE AIR.

_____pF.

12.) NOW, DIVIDE THE CAPACITANCE OF THE TEFLON, BY THE CAPACITANCE OF THE AIR MEASUREMENT.

$$\frac{C1}{C0} = \boxed{} \text{ D.C.}$$

13.) THE ANSWER WILL BE THE DIELECTRIC CONSTANT (D.C.) OF THE TEFLON STANDARD. IT SHOULD BE BETWEEN 2.03 -- 2.04 D.C. AT 1.0 kHz ---- 1.0 MHz.

14.) THE D.C. SHOULD BE WITHIN THIS RANGE, WITHIN THE ACCURACY OF YOUR BRIDGE.

15.) THIS SHOULD BE A CHECK OF THE BRIDGE (RCL), CABLES, AND THE TEST FIXTURE.