

## DC ELECTRICAL CHARACTERIZATION FACILITY (Precision LCR Meter)



**MODEL:** HP 4284A Precision LCR Meter

**INSTALLATION PLACE:** DC Electrical Characterization Laboratory (room No14 new-building), Department of Microelectronics

### **DESCRIPTION:**

The 4284A precision LCR meter features a wide 20 Hz to 1 MHz test frequency range and superior test-signal performance that allows the 4284A to test components to the most commonly-used test standards. Whether in research and development, production, quality assurance, or incoming inspection, the 4284A will meet all of your LCR meter test and measurement requirements.

### **SPECIFICATIONS**

1. Frequency: 20 Hz to 1 MHz, 8610 selectable frequencies
2. Accuracy:  $\pm 0.01\%$
3. Voltage: Non-constant: 5 mV<sub>rms</sub> to 2 V<sub>rms</sub>  
Constant: 10 mV<sub>rms</sub> to 1 V<sub>rms</sub>
4. Current Non-constant: 50  $\mu$ A to 20 mA  
Constant: 100  $\mu$ A to 10 mA
5. Output impedance: 100 $\Omega$ ,  $\pm 3\%$
6. Display Range:  
|Z|, R, X: 0.01 m $\Omega$  to 99.9999 M $\Omega$   
|Y|, G, B: 0.01 nS to 99.9999 S  
C: 0.01 fF to 9.99999 F  
L: 0.01 nH to 99.9999 kH

### **APPLICATIONS**

1. Power inductor characterization
2. Precise ceramic capacitor measurements
3. Semiconductor C-V evaluation
4. Dielectric material properties
5. Impedance measurement / Impedance spectroscopy
6. Admittance measurements / Admittance spectroscopy
7. MIS device characterization (C-V-f, Conductance measurements)

### **CERTIFICATION/ACCREDITATION**

The facility is certified under ISO 9001

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