

# TECPEL

## 200KHz LCR Meter



T+M



### Key Features:

- Measurement Parameters: Z, Ls, Lp, Cs, Cp, DCR, ESR, D, Q, and  $\theta$
- Test conditions : 100Hz, 120Hz, 1KHz, 10KHz, 100KHz, 200KHz ;  
1Vrms, 250mVrms, 50mVrms, 1Vdc (DCR only)
- DMM Functionalities
- Dual LCD Display with LED backlit
- Open / Short calibration
- Remote binning capability
- Auto range / range hold selection

RS-232C





**LCR 200 SPECIFICATIONS**

**Test condition:**

Frequency : 100Hz/120Hz/1KHz/  
10KHz/100KHz/200KHz  
Level : 1Vrms/250mVrms/  
50mVrms/1Vdc (DCR only)  
Measurement Parameters : Z, Ls, Lp, Cs, Cp, DCR,  
ESR, D, Q and  $\theta$   
Basic Accuracy : 0.1  
Dual Liquid Crystal Display with LED backlit  
Auto Range or Range Hold selection  
Open/Short Calibration  
RS232C Interface

**Primary Parameters Display:**

Z : AC Impedance  
DCR : DC Resistance  
Ls : Serial Inductance  
Lp : Parallel Inductance  
Cs : Serial Capacitance  
Cp : Parallel Capacitance

**Secondary Parameters Display:**

$\theta$  : Angle Impedance  
ESR : Equivalent Series Resistance  
D : Dissipation Factor  
Q : Quality Factor

**Combinations of Display:**

Serial Mode : Z- $\theta$ , Cs-D, Cs-Q, Cs-ESR,  
Ls-D, Ls-Q, Ls-ESR  
Parallel Mode : Cp-D, Cp-Q, Lp-D, Lp-Q

**DMM Functionalities:**

DCV, ACV, DCA, ACA, Diode/Continuity Check

**Measurement Range:**

| Parameter | Range                              |
|-----------|------------------------------------|
| Z         | 0.000 $\Omega$ to 500.0 M $\Omega$ |
| L         | 0.030 $\mu$ H to 9999 H            |
| C         | 0.003 pF to 80.00 mF               |
| DCR       | 0.000 $\Omega$ to 500.0 M $\Omega$ |
| ESR       | 0.000 $\Omega$ to 9999 $\Omega$    |
| D         | 0.000 to 9999                      |
| Q         | 0.000 to 9999                      |
| $\theta$  | -180.0° to 180.0°                  |
| V         | 0.000mV to $\pm$ 600.0V            |
| I         | 0.000mA to $\pm$ 2.000A            |

**DC Voltage Measurement:**

Range : 2V, 20V, 200V and 600V  
Resolution : 1mV, 10mV, 100mV, 1V  
Accuracy :  $\pm$  (0.4%+3digit)  
Input Impedance : 1M $\Omega$

**AC Voltage Measurement (True RMS):**

Range : 2V, 20V, 200V and 600V  
Resolution : 1mV, 10mV, 100mV, 1V  
Accuracy :  $\pm$  (0.8%+5digit) @ 40 Hz ~ 1 KHz  
Input Impedance : 1 M $\Omega$

**DC Current Measurement:**

Range : 2A, 0.2A, 20mA and 2mA  
Resolution : 1mA, 0.1mA, 0.01mA and 1 $\mu$  A  
Accuracy :  $\pm$  (0.4%+3digit)  
Current Shunt : 0.1 $\Omega$  @ current > 20mA  
10 $\Omega$  @ current  $\leq$  20mA

**AC Current Measurement (True RMS):**

Range : 2A, 0.2A, 20mA and 2mA  
Resolution : 1mA, 0.1mA, 0.01mA and 1 $\mu$  A  
Accuracy :  $\pm$  (0.8%+5digit) @ 40 Hz ~ 1 KHz  
Current Shunt : 0.1 $\Omega$  @ current > 20mA  
10 $\Omega$  @ current  $\leq$  20mA

**Continuity Check:**

Continuity Threshold : 50 $\Omega$  (Approximately)  
Continuity Indicator : Tone Buzzer  
Input Protection : 600V (max)

**Diode Test:**

Test current : 2.5mA (Typical)  
Open circuit voltage : 5.0VDC (nominal)  
Input protection : 600V (max)

**General:**

Temperature : 0 to 40° C (Operating)  
-20 to 70° C (Storage)  
Relative Humidity : Up to 85%  
AC Power : 110V/220V  $\pm$  10%, 60/50Hz  
Dimensions : 300mm x 220mm x 150mm  
( 11.8" x 8.7" x 5.9" ) (D x W x H)  
Weight : 4.5 kgs

**Standard Accessories:**

- ① TL09C Kelvin clips 1 pc
- ② Test leads 1 pc

**Optional Accessories:**

- ③ TL09A SMD test probe
- ④ TL09B Component fixture



Specifications subject to change without notice.