



<b>GPS-3139B</b>	<b>Test Frequency: 10Hz ~ 300KHz (Continuous)</b>	<b>Accuracy: 0.05%</b>
<b>GPS-3138B</b>	<b>Test Frequency: 50Hz ~ 200KHz (Continuous)</b>	<b>Accuracy: 0.05%</b>
<b>GPS-3137B</b>	<b>Test Frequency: 50Hz ~ 200KHz ( 37 Points)</b>	<b>Accuracy: 0.1%</b>
<b>GPS-3136B</b>	<b>Test Frequency: 50Hz ~ 100KHz (16 Points)</b>	<b>Accuracy: 0.05%</b>
<b>GPS-3135B</b>	<b>Test Frequency: 50Hz ~ 100KHz (10 Points)</b>	<b>Accuracy: 0.05%</b>

GPS-313XB is a general-purpose LCR meter for incoming inspection of components, quality control, and laboratory use. GPS-313XB is used for evaluating LCR components, materials, and semiconductor devices over a wide range of frequencies (10 Hz to 300 kHz) and test signal levels (0.01Vrms to 2 Vrms).

With its built-in comparator, GPS-313XB can output comparison/decision results for sorting components into a maximum of ten bins. Furthermore, by using the handler interface, the GPS-313XB can be easily combined with a component handler, and a system controller to fully automate component testing, sorting, and quality-control data processing.

GPS-313XB's list sweep function permits entry of up to 10 frequencies or test signal level points to be automatically measured.

## Main Specifications and Features:

**Test Function :** Cs-Rs, Cs-D, Cp-Rp, Cp-D, Lp-Rp, Lp-Q, Ls-Rs, Ls-Q, G-B, Rs-Q, Z- $\theta$ r, Z- $\theta$ d.

**Equivalent Circuit :** Serial and Parallel

**Ranging:** Auto, Hold and Nominal range. Total 9 ranges.

### Measurement Speed:

Fast: 30 readers per second;

Medium 2: 10 readers per second;

Medium 1: 5 readers per second;

Slow: 1.5 readers per second.

Simultaneity, you can specify the averaging factor within the range of 1 to 256 in steps of 1-Averaging Factor to improve performance.

**Trigger Mode :**Includes Internal, Manual, External and Bus Trigger.



# DIGITAL LCR METER

## GPS-313XB Series

### Measurement range :

Parameter	Measurement Range
L	0.00001 $\mu$ H ~ 9999.99H
C	0.00001pF ~ 9999.99mF
R, X, Z	0.00001 $\Omega$ ~ 99.9999M $\Omega$
B, G	0.01nS ~ 999.999S
D	0.00001 ~ 9.99999
Q	0.00001 ~ 99999.9
$\theta_d$	-179.999° ~ 179.999°
$\theta_r$	-3.14159 ~ 3.14159

### Test Signal Frequency:

GPS-3139B: 10Hz~300kHz

GPS-3138B: 50Hz~200kHz

GPS-3137B: [37 Points]

50Hz, 60Hz, 80Hz, 100Hz, 120Hz, 150Hz, 200Hz, 250Hz, 300Hz, 400Hz, 500Hz, 600Hz, 800Hz, 1KHz, 1.2KHz, 1.5KHz, 2KHz, 2.5KHz, 3KHz, 4KHz, 5KHz, 6KHz, 8KHz, 10KHz, 12KHz, 15KHz, 20KHz, 25KHz, 30KHz, 40KHz, 50KHz, 60KHz, 80KHz, 100KHz, 120KHz, 150KHz, 200KHz

GPS-3136B : [16 Points]

50Hz, 60Hz, 100Hz, 120Hz, 200Hz, 400Hz, 500Hz, 1KHz, 2KHz, 4KHz, 5KHz, 10KHz, 20KHz, 40KHz, 50KHz, 100KHz

GPS-3135B : [10 Points]

50Hz, 60Hz, 100Hz, 120Hz, 1KHz, 10KHz, 20KHz, 40KHz, 50KHz, 100KHz

### Test Signal Level :

0.01V~2.00Vrms, 0.01V resolution.

Test Signal Accuracy:  $\pm(10\%+10mV)$

### Output impedance :

30 $\Omega$ , 50 $\Omega$  and 100 $\Omega$ ,

Accuracy: 5%



## DIGITAL LCR METER

## GPS-313XB Series

### Main Functions :

#### Correction Function :

OPEN/SHORT correction: Eliminates measurement errors due to stray parasitic impedance in the test fixtures.  
LOAD correction: Improves measurement accuracy by using a calibrated device as a reference.

#### Comparator Function (Sorting) :

Bin sort :The primary parameter can be sorted into BIN1-BIN9, AUX, OUT and HI/IN/LO for each of the primary measurement parameters.  
The sequential mode or tolerance mode can be selected as the sorting mode.

#### Limit Setup :

Absolute value, deviation value, and % deviation value can be used for setup.

#### BIN count [\*Not available in GPS-3135B] :

Countable from 0 to 999999

#### Sweep parameter

Test frequency, test signal voltage.

#### Comparator function of list sweep

The comparator function enables you to set one pair of lower and upper limits for each measurement point.  
You can select from: Judge with the first sweep parameter/Judge with the second parameter/Not used for each pair of limits.

### Measurement Assistance Functions

#### Files

Up to 10 setup conditions can be written to/read from the built-in non-volatile memory.

#### Key Lock

The front panel keys can be locked.

#### RS-232

Complies with SCPI.

#### DC Bias Voltage

0V/1.5V/2V

### General Specification

**Display:** True color TFT-LCD, Size: 3.5"

**Test Function:** Cs-Rs, Cs-D, Cp-Rp, Cp-D, Lp-Rp, Lp-Q, Ls-Rs, Ls-Q, G-B, Rs-Q, Z-θr, Z-θd.

**Storage temperature and humidity range:** 10 °C~40°C, 10~90% RH

**Power Supply:** AC 95V-260V, 48.5Hz-62.5Hz

**Maximum rated power:** 30VA

**Standard accessories :** test leads, test fixture, short-circuit slice

**Optional accessories :** SMD patch clamp, SMD patch test clip, Data acquisition software