



GPS-3139C Test Frequency: 10Hz ~ 300KHz (Continuous) Accuracy: 0.05%
GPS-3138C Test Frequency: 50Hz ~ 200KHz (Continuous) Accuracy: 0.05%
GPS-3135C Test Frequency: 50Hz ~ 100KHz (Continuous) Accuracy: 0.05%

GPS-313XC is a general-purpose LCR meter for incoming inspection of components, quality control, and laboratory use. GPS-313XC 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-313XC can output comparison/decision results for sorting components into a maximum of ten bins. Furthermore, by using the handler interface, the GPS-313XC can be easily combined with a component handler, and a system controller to fully automate component testing, sorting, and quality-control data processing. Also it can measure DCR (DC Resistance) and DC Bias function. GPS-313XC'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-Or, Z-0d.

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.

Simultaneously, 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.

Measurement range :

Parameter	Measurement Range
L	0.00001 μ H ~ 9999.99H
C	0.00001pF ~ 9999.99mF
R、X、Z	0.00001 Ω ~ 99.9999M Ω
B、G	0.01nS ~ 999.999S
D	0.00001 ~ 9.99999
Q	0.00001 ~ 99999.9
θ_d	-179.999° ~ 179.999°
θ_r	-3.14159 ~ 3.14159

DCR: 0.00001 Ω ~ 99.9999M Ω

DC Bias: ± 2.5 V

Test Signal Frequency:

GPS-3139C: 10Hz~300kHz Continious

GPS-3138C: 10Hz~200kHz Continious

GPS-3135C : 10Hz~100kHz Continious

Interface:

RS232C, ExHandler Interface, with standard USB disc interface (article 10000 data) (GPS-3139C and GPS-3138C only)

RS232c,exhandler and USB disc interface (GPS-3135C only)

Others:

LCR automatic selection, keypad lock, SCPI,Modbus instruction set, can storage 999sets LCD Files,trigger delay, RS-485 interface available

Source resistance: 30 Ω , 50 Ω , 100 Ω

Test Signal Level :

0.01V~2.00Vrms, 0.01V resolution.

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

Output impedance :

30 Ω , 50 Ω and 100 Ω ,

Accuracy: 5%

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

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. 14-bin sorting, 10-bin GD, 1-bin NG, 1-bin AUX, 2-bin principle parameter NG, Count function: Max - 999999

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

±2.5 V

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, DCR

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