

WK5400L Series LCR Meter for High Current Test System



The latest release

Model selection:

WK5400L5	10Hz~5MHz
WK5400L8	10Hz~8MHz
WK5400L10	10Hz~10MHz

Product features:

- ❖ Designed for high current inductance testing systems.
- ❖ External DC bias current source up to 250A/1MHz or 300A/500kHz using 10 or 12 x 3265B DC Bias Units.
- ❖ Three modes of operation with independent calibrations to cover all test requirements.
- ❖ High Test Speed.
- ❖ Basic Accuracy: 0.05%
- ❖ Measurement Frequency: 10Hz~10MHz
- ❖ AC signal source: 5Vrms/200mArms. Step size < 1% of setting.
- ❖ Rdc measurements with 10uΩ resolution and drive levels up to 5V/200mA.
- ❖ Allows up to 4 different parameters to be measured, each at up to 3 different spot frequencies at the same time, totalling 12 measurement results.
- ❖ Automatic level control (ALC) maintains constant voltage or constant current at Device Under Test.
- ❖ Two settings for source resistance: 25Ω and 50Ω.
- ❖ Fixture Calibration only needed once. Does not need to be repeated if the fixture is not changed.
- ❖ Data logger firmware option /D allows measurement and results storage in real time.
- ❖ Accurate and stable testing down to pico Henry inductance level.
- ❖ Accurate testing below 100mV AC Drive Level.
- ❖ Design allows accurate testing at any testing frequency point.
- ❖ Best in Class correlation between Boost Mode and Normal Mode measurements.
- ❖ Multi-point Multi Bias with ΔL, high-speed testing
- ❖ Diagnostic Status Page indicates status of each 3265 DC Bias Unit connected in the system.
- ❖ Remote control via GPIB, LAN and USB interfaces.
- ❖ Energy-saving smart switching mode: When operating in Standalone Mode, the 3265B bias source units automatically shut down.
- ❖ Made in the UK and serviced globally.

Functional description:		
<p>Meter Mode, MultiBias Mode and Calibration Mode as standard. Graph Mode is an option. UI operation interface is very simple.</p>	<p>Saturation I(Sat) testing can be done using curve sweeping or using MultiBias fast test mode.</p>	<p>Single trigger can produce both AC parameter and DC Resistance measurements displayed at the same time.</p>
<p>Bias Status displays the working indicators of each 3265B bias source.</p>	<p>Open/Short Circuit Trims, HF Compensation and Load Compensation in Boost/Normal mode, with comprehensive correction to ensure accuracy and stability.</p>	<p>Field upgradeable software. Technical support available which is easy to follow, fast and convenient. Made in the UK and fast local service.</p>



5400 Product Specifications:

Function	Parameter	5400L5	5400L8	5400L10
Measurement Frequency	Minimum Frequency	10Hz		
	Maximum Frequency	5MHz	8MHz	10MHz
	Frequency Resolution	≤1mHz		
AC Drive	AC Voltage Range	10mV~5Vrms		
	AC Voltage Resolution	<1% of setting		
	AC Current Range	200uA~200mArms		
	AC Current Resolution	<1% of setting		
	Automatic Level Control (ALC)	ON or OFF Maintains constant voltage or constant current at the Device Under Test		
	Source Resistance	Normal Mode : 50Ω ; Boost Mode : 25Ω		
Basic Accuracy		0.05%		
DC Resistance (Rdc)	DC Voltage Range	10mV~5V		
	DC Voltage Resolution	1mV		
	DC Resistance Resolution	10uΩ		
Built-in DC Bias	Maximum current	Reserved temporarily		
External DC bias	Maximum voltage	Reserved temporarily		
External DC Bias Current using 3265B or 3265BQ* DC Bias Units	Maximum Current and Frequency	300A at 500kHz 250A at 1MHz 50A at 3MHz*		
	DC Bias Current Resolution	25mA		

Test Mode	Ac Test Parameter	Z θ C D L Q Rac B G X Y
	DC Test Parameter	Rdc
	Trigger type	Internal, Manual, External, Remote control
	Equivalent Circuit	Parallel/Series
	Pass/Fail Test	Yes
	Type	Meter Mode, MultiBias Current Mode & Calibration Mode Analysis Mode (option), Bin Handler Mode (option)
External connection	GPIB	Yes
	LAN	Yes
	USB Host Port	x3 (Front Panel: x1, Rear Panel: x2) Suitable for USB Flash, Keyboard, Barcode scanner etc
	USBTMC Interface Port:	Yes
	Bin Handler PLC interface	Option
Test parameter display	Four parameters can be displayed for a single test setting. Three separate test condition settings possible. Up to 12 parameters displayed	
Calibration Mode	Open Circuit & Short Circuit Trim HF Load Compensation Normal/ Boost Mode	
Test Setup Memory	Internal storage	
Saving Test Results	Internal storage	
General	AC Power Input:	90VAC~264VAC Automatic switching 47Hz~63Hz
	Display screen:	7-inch WVGA 800 x 480 pixels
	Height: Size (H x W x D): Weight:	3U 150 x 440 x 520mm 11kg
	Temperature: Relative Humidity:	0°C~40°C (Operating) -20°C~+60°C (Storage) 18°C~28°C (Normal Accuracy) <80%
Compliance	CE Marking:	Low Voltage Directive EMC Directive RoHS Directive
	UKAS Marking:	UK Regulations

Optional equipment list:

Order Code	Item
Firmware:	
1J5400OPG	Analysis Function (Graphs)
1J5400OPD	Data Logging. Measurement and results storing in real time
Internal Hardware:	
1J5400DCBIASKIT	One interface board and cables to control 6 x 3265B DC Bias Units
/5B1	Bin Handler: Non-isolated 5V signals
/5B2	Bin Handler: Isolated 24V signals
/5B3	Bin Handler: Universal optical coupling card
External Hardware:	
1J1041	300A High current two-wire DIP fixture
1J1031	High current two-wire SMD adaptor for 1J1041 fixture
1J1054	1054 DIP fixture replacement (for 1054 supplied as standard with 5400).