

Ihr Ansprechpartner / Your Partner:

dataTec AG

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ayne Kerr Mess- und Prüftechnik. Die Experten.

### 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.

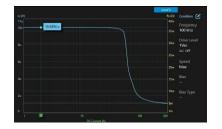
## **Functional description:**



Meter Mode, MultiBias Mode and Calibration Mode as standard. Graph Mode is an option. UI operation interface is very simple.



Bias Status displays the working indicators of each 3265B bias source.



Saturation I(Sat) testing can be done using curve sweeping or using MultiBias fast test mode.



Open/Short Circuit Trims, HF Compensation and Load Compensation in Boost/Normal mode, with comprehensive correction to ensure accuracy and stability.



Single trigger can produce both AC parameter and DC Resistance measurements displayed at the same time.



Field upgradeable software. Technical support available which is easy to follow, fast and convenient. Made in the UK and fast local service.



WK5400 is the test system controller. The DC Bias Current source WK3265B machines are connected to the Bias Adapter of the 5400 directly with a dedicated wiring system. This makes it is easier to set up and maintain the system.

## **5400 Product Specifications:**

Function	Parameter	5400L5	5400L8	5400L10	
	Minimum Frequency	10Hz			
Measurement Frequency	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 : $50\Omega$ ; Boost Mode : $25\Omega$			
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*	Maximum Current and Frequency	300A at 500kHz 250A at 1MHz 50A at 3MHz*			
DC Dias Office	DC Bias Current Resolution		25mA		

	Ac Test Parameter	ZθCDLQRacBGXY			
Test Mode	DC Test Parameter	Rdc			
	Trigger type	Internal, Manual, External, Remote control			
	Equivalent Circuit	Parallel/Series			
	Pass/Fail Test	Yes			
	Туре	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 I	Test Setup Memory		Internal storage		
Saving Test	Results	Internal storage			
		AC Power Input:	90VAC~264VAC Automatic switching 47Hz~63Hz		
General		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:  UKAS Marking:	Low Voltage Directive EMC Directive RoHS Directive UK Regulations		



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# **WAYNE KERR ELECTRONICS**

# **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).		