Wayne Kerr Electronics

Technical data sheet

25 A DC Bias Units - 3265B and 3265BQ
DC Bias Fixture – 1009

Ancillary Units for models 3260B and 3255B

- Enhances usability of two Wayne Kerr Analyzers
  - 3255B Inductance Analyzer
  - 3260B Precision Magnetics Analyzer
- DC Bias Units can deliver between 25 mA and 125 A DC bias current in steps of 25 mA
- DC Bias Fixture model 1009 allows accurate and safe testing of SMD inductors
- Adds additional functionality

Component tests up to 125 A DC bias current

To evaluate components at high currents up to 125 A the 3265B DC Bias Unit is used with either the Wayne Kerr 3255B Inductance Analyzer or the 3260B Precision Magnetics Analyzer.

When one DC Bias Unit is connected to either instrument up to 25 A of DC bias current can be set in steps of 25 mA with one unit.

Additional DC Bias Units can be added in parallel such that with five units connected in parallel it is possible to set bias currents up to a maximum of 125 A DC.

The instruments have a number of safety and protection features including a safety interlock system to protect the user against back EMFs. It is also fully protected against over temperature, excess voltage drop and sense lead failure.

3265B DC Bias Unit can deliver up to 25 A of DC bias current in steps of 25 mA

SMD inductor tests up to 50 A

With the addition of the 1009 DC Bias Fixture DC bias currents up to 50 A can be applied to an SMD inductor during component test in order to evaluate the devices thoroughly at the operational bias currents.

The fixture operates with either one or two 3265B DC bias units and a 3260B Precision Magnetics Analyzer.

Four rear panel mounted BNC connectors and two captive high current cables ensure simplicity and ease of use with the 3265B.

Wayne Kerr Electronics

Technical data sheet

Interchangeable component test carriers ensure that the 1009 DC Bias Fixture may be used with a wide variety of devices. If a device package is not supported by one of the standard carriers then a custom carrier design service is available.

1009 DC Bias Fixture enables currents up to 50 A to be applied to an SMD inductor

Stable component fixturing ensures high accuracy and repeatable measurements. Enclosed fixtures, with safety interlocks, minimises risk to operators.

Technical specifications

25 A DC Bias Unit - 3265B

Compliance voltages
Maximum compliance voltage (<12 kHz) 11 V DC at 0.25 V AC drive level.
10 V compliance at 1 V AC drive level. For f>12 kHz deduct 0.5 V.
Must be used in conjunction with either a 3260B or 3255B

Applications
Permits measurement analysis of wound components with levels of DC bias current higher than the standard 1A

Variable measured
In impedance mode: L, Z, R, Q, D.
Not applicable to Rdc, or transformer measurements

Measured frequency range
3255B: 20 Hz to 500 kHz
3255BQ: 20 Hz to 1 MHz
3260B: 20 Hz to 3 MHz (with 3265BQ)

Basic accuracy
± 1%, Varies with measurement speed, frequency and options chosen.

Measurement terminals
2-terminals measurement via M8 studs.
4-terminal measurement via Kelvin leads and M8 studs.
Measurement terminals internally protected by 1.6A fuses against normal inductor back-EMF or accidental disconnection of inductor.
Front panel fuses easily replaced.

Control connections
I^2C bus link controls application of DC current and monitors status of analyzer. Status data includes excessive voltage drop and over temperature

Optional facilities
3265B bias units may be paralleled, maximum of five units gives 125A

Interlock
Bias safety interlock socket on rear panel of analyzer provides door lock and closed control lines

Temperature range
Storage: -40°C to 70°C. Operating: 0°C to 40°C (20 A max)
Full accuracy: 15°C to 30°C (25 A max)

Power supply
Universal 90 to 255 V AC, 47 to 63 Hz
Input current 9 A rms max. Power factor >0.9
Unit powers up automatically when connected to a powered analyzer. Isolating switch provided

Dimensions
Height 190 mm (7 $^1/_2$″)
Width 440 mm (17 $^3/_8$″)
Depth 520 mm (20 $^1/_2$″)
Weight 15 kg (33 lb)

Cooling
Fan cooled. Intake front, exhaust rear. Fan filter accessible on front panel. Over temperature trip provided

Order codes and options

Description	*Order code*
25A DC bias unit 3265B (1 MHz)	**1J3265B**
25A DC bias unit 3265BQ (3 MHz)	**1J3265BQ**

Both units supplied with user manual, power cable, spare fuses, 4 x BNC to BNC links, daisy chain link and rack mounting ears (unit needs rear support)

Accessories

Description	*Order code*
1009 DC Bias Fixture	**1J1009**
Kelvin clips leads (fine jaws)	1EVA40100
Kelvin clips leads (large jaws)	1EVA40180
Power transfer bus bars (Two each per unit in parallel)	4-324-6009
Filter pad (washable)	HMDEC10

UK
Wayne Kerr Electronics
Vinnetrow Business Park
Vinnetrow Road, Runcton
Chichester, West Sussex
PO20 1QH, UK
Tel: +44 1243 792200
Fax: +44 1243 792201

USA
Wayne Kerr Electronics
165L New Boston Street
Woburn
MA 01801-6201 USA
Tel: +1 781 938 8390
Sales: (800) 933 9319
Fax: +1 781 933 9523

www.waynekerrtest.com **sales@waynekerr.info**