



DC Bias Unit 6565

For use with DC Bias Fixtures 1026 1027 and 1031



1026 Fixture (20 A)



1027 Fixture (40 A)

6565 DC BIAS UNIT TO WORK WITH THE 6500 ANALYZER

- Enhances usability of 6500 Analyzer
- A single 6565 DC Bias Unit can deliver between 1 mA and 1 A of DC bias current in steps of 1 mA, and 1 A to 10 A in steps of 10 mA.
- Up to four 6565 units can be paralleled to provide bias currents up to 40 A
- 6565 Bandwidth options of 5 MHz, 30 MHz and 120 MHz.
- Two basic fixtures available, 1026 (20 A) and 1027(40 A)
- 1031 SMD adaptor available for 1026 and 1027 fixtures



6500 Analyzer with four 6565's and 1027

Component tests up to 40 A DC bias current

To evaluate components at currents up to 40 A, the 6565 DC Bias Units are used with the Wayne Kerr 6500 series of precision Analyzers.

When one 6565 DC Bias Unit is connected to an instrument, up to 10A of DC bias current can be selected. For currents up to 1A this current can be set in steps of 1mA and for currents from 1A to 10A the setting steps are 10mA. These step values multiply up in proportion to the number of bias units connected. By choosing appropriate models of 6500 and 6565, the user can obtain DC bias currents up to 40A at the full 120MHz operating frequency of the Analyzer.

The 6565 instruments have a number of safety and protection features including a safety interlock system to protect the user against back EMFs. They are also fully protected against over temperature, excess voltage drop and sense lead failure. An innovative design feature reduces standing power dissipation in the units thus also reducing wasted energy.



1031 SMD Attachment

SMD inductor tests up to 40 A and up to 120MHz !

By using the additional 1031 SMD attachment and the standard jaws provided, the 1026 and 1027 fixtures can be converted to accept a wide range of SMD components from 20 mm x 20 mm x 20 mm (L x W x H) down to 0603 size. Other jaw sizes are available to special order.

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

Technical specifications

The 6565 series of DC bias units must be used in conjunction with either the 6500B Precision Impedance Analyzer or the 6500P HF LCR Meter.

Compliance voltages

9V maximum at 1 V ac drive level
10V maximum at 0.25 V ac drive level

Applications

Permits measurement analysis of wound components with levels of DC bias current higher than the standard 100mA

Variable measured

In impedance mode: L, Z, R, Q, D.
Not applicable to R_{dc}, or transformer measurements

Measured frequency range

6565-05	20 Hz to 5 MHz
6565-30	20 Hz to 30 MHz
6565-120	20 Hz to 120MHz

The 6500 Analyzer used with the 6565 model should have the same or greater frequency range to get the full bandwidth.

Basic accuracy

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

Measurement Fixtures

1026 is applicable for currents up to 20 A and the 1027 for currents up to 40 A. For SMD use the 1031 adaptor must be used in addition to the selected 1026 or 1027.

Control connections

I²C bus link controls application of DC current and monitors status of analyzer. Status data includes excessive voltage drop and over temperature

Parallel Capability

Up to four 6565 bias units may be connected in parallel to give four times the rated current (40 A).

Interlock

Bias safety interlock socket on rear panel of 1026 or 1027. The interlock operated by the protective cover on fixture.

Connection Method

By Lemo FFA series connectors and high current 50Ω coaxial cable.

Temperature range

Storage: -40°C to 70°C.
Operating: 0°C to 40°C @ 10 A
Full accuracy: 15°C to 30°C (at maximum rated current)

Power supply

Universal 85 to 265 V AC, 47 to 63 Hz
Input current 4.2 A rms max.
Power factor Meets EN61000-3-2
Unit powers up automatically when connected to a powered analyzer. Isolating switch provided

Dimensions

Height 132 mm
Width 435 mm
Depth 522 mm
Weight 15 kg

Cooling

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

Order codes and options

<i>Description</i>	<i>Order code</i>
10A DC bias unit 6565 5 MHz	1J6565-05
10A DC bias unit 6565 30MHz	1J6565-30
10A DC bias unit 6565 120MHz	1J6565-120
20A Fixture 1026	1J1026
40A Fixture 1027	1J1027
40A SMD attachment 1031	1J1031

All units are supplied with user manual, power cable, spare fuses, High current 50Ω cables and control link cable.

Either the 1J1026 or the 1J1027 must be ordered at the same time as the 6565 is ordered.

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