

# J2131A DC Bias Injector

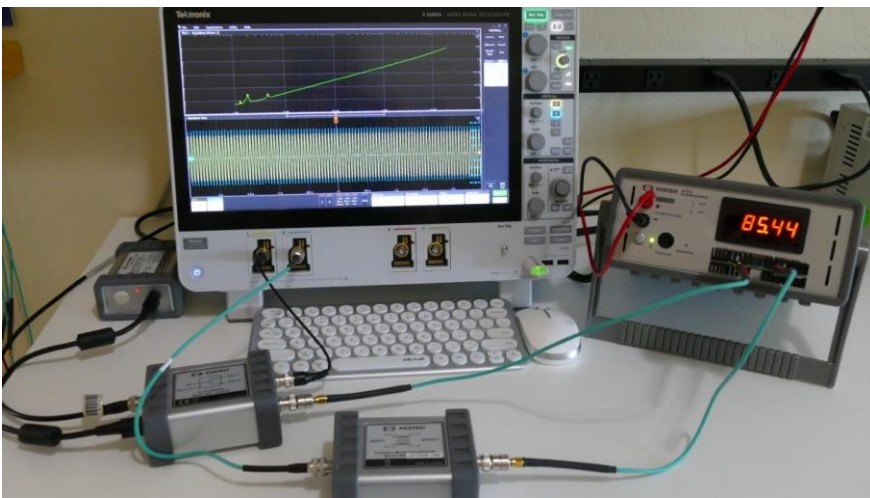
## Measuring Power Inductor Characteristics—Up to and Including Saturation—to Support Accurate Inductor Simulation and Modeling, Troubleshooting and Detecting Counterfeit Materials

Until now, no low-cost options have been available for measuring high-current power inductor performance with a DC bias current.

The J2131A DC Bias Source boosts a constant current from a benchtop power supply by a factor of 24, creating up to 125Amps of DC bias current from a 6Amp benchtop power supply.

The J2131A expands the 2-port impedance measurement and is compatible with any 2-port shunt-through impedance measurement system.

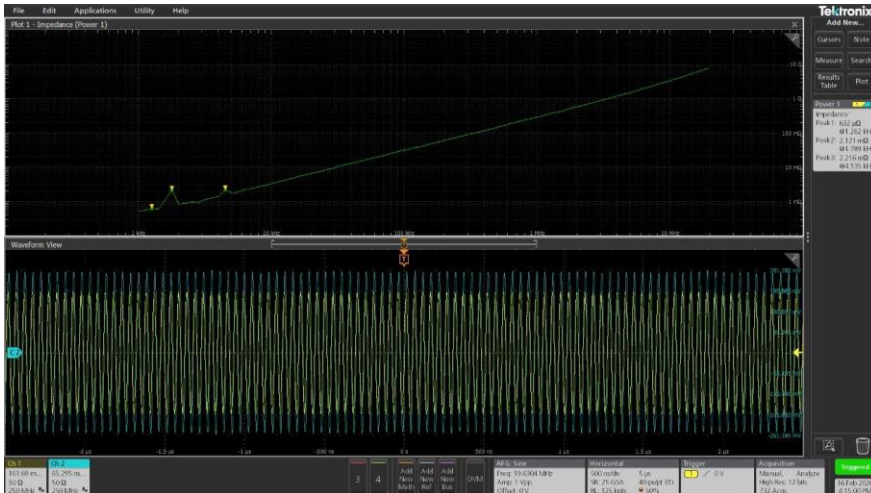
Measurement accuracy is improved by de-embedding the J2131A from the measurement either using math functions, trace math or post-processing. De-embedding measures the fixture and cable parasitics and subtracts them from the final test data.



- Enables accurate inductor testing with high DC bias currents
- J2131A – DC Bias Source provides 1:24 current scaling from a benchtop power supply
- An accurate current meter displays the inductor bias current
- Works with existing 2-port shunt-through instrumentation
- Inductor printed circuit board mounts are available separately
- Options include heat sinks for dissipating inductor power and controlling the test temperature



# Sample Inductor Measurement



This example shows a 150nH inductor with an 85A bias measured with a Tektronix 6-Series Mixed Signal Oscilloscope

## Related Products

**J2131ABUNDLE** J2131A DC Bias Source Measurement System includes J2131A DC Bias Injector, P9610 Power Supply, J2113A Differential Amplifier and two PDN Cables

**J2113A Semi-Floating Differential Amplifier** Active ground loop breaker for the 2-port shunt-through impedance measurement. Eliminates ground loop errors from 1Hz - 800MHz

**J2161A Active Splitter** The J2161A enables Gold-Standard 2-port shunt-through Power Distribution Network Impedance measurement on oscilloscopes. 100Hz – 500MHz typical measurement bandwidth, impedances down to 1mohm. Works with Tektronix Series 5/6 oscilloscopes with FRA features (requires 5-PWR or 6-PWR software)

**Inductor Mounts** Specialized, high-current PCB mounts for under-bias inductor testing

**PDN Cable** Ultra-flexible cable with 18Ghz bandwidth and reduced shield resistance optimized for PDN and SI testing

**P9610A/11A Power Supplies** Mixed Mode Power Supply with ultra-stable constant current capability, (36V/7A 108W or 60V/6A 150W)



**P9610A Power Supply**

To learn how this solution can address your specific needs please contact Picotest  
[info@picotest.com](mailto:info@picotest.com)  
[www.picotest.com](http://www.picotest.com)

Picotest products related to this solution



**J2102B Ground Loop Breaker—Common Mode Transformer**



**1 Meter 18Ghz PDN Cable**



**J2113A Active Differential Amplifier-Injector**

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