

J2160A Data Sheet

T/R Probe Adapter

For the Keysight E5061B ENA

2-Port Measurements

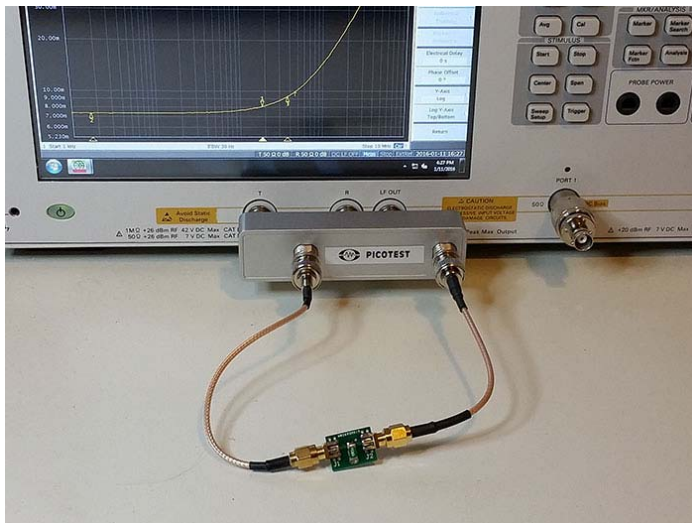


Probe Adapter

E5061B T/R Ports

The Picotest J2160A Probe Adapter provides a low noise, compact solution when using the E5061B T/R ports in a 2-port shunt thru measurement. The T/R ports are desirable for low frequency 2-port measurements, since these ports are semi-floating, allowing low impedance measurements without the use of a coaxial common mode transformer such as the J2102A. The floating ports allow milliohm measurements even at very low frequency and up to the 30MHz range of the T/R ports.

The current solution uses a resistive 6dB port splitter combined with coaxial cables to support this measurement. The J2160A is a slim profile adapter, converting the three E5061B BNC ports to two BNC ports for the 2-port measurement. The 6 dB resistive port splitter is included internal to the adapter so no external splitter or cables are required. The short connections are neater, consume less bench space, and can result in a lower noise measurement.



The adapter can also be combined with ultra-wide bandwidth DC blockers, such as the Picotest P2130A. This allows you to make 2-port measurements of sensitive devices without the 50 ohm DC port loading, which could overload the device being measured and/or severely distort the measurement results.

The J2160A adapter also supports the extended 2-port shunt thru measurement, allowing higher impedance 2-port measurements, such as opamps and voltage references by adding a series resistor to each port.¹

FEATURES:

- Low noise, compact adapter
- Internal 6dB port splitter
- Supports 2-port shunt-thru test
- Ultra-low impedance measurements
- Two semi-floating ports
- Works with DC blockers
- Low power opamp and voltage reference measurements

HIGHLIGHTS:

- Consumes less bench space than other solutions
- Neater connections consume less bench space
- Rugged, comfortable, ergonomic design; slim form factor
- Easy to attach and detach



References

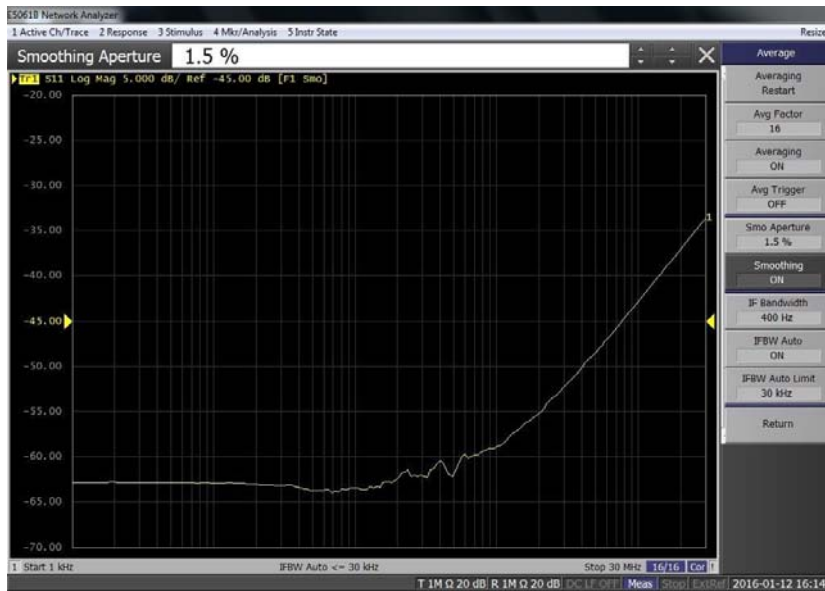
- 1) Increase Range in 2-port Impedance Measurements, EDN, May 04, 2015



The 6dB splitter is accurate to within 0.25dB across the full frequency range of the instrument.



The T port insertion loss is less than a few hundredths of a dB over the full instrument range.



The T port return loss is better than 30dB over the full frequency range of the instrument.



The return loss of the 6dB splitter legs is better than 25dB over the full measurement range of the instrument.

For more information on Picotest products, applications, or services, please contact Picotest.

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Caution: To avoid equipment damage and/or severe injuries death or death do not use this probe close to voltages higher than 50 VAC or 75 VDC.