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Title: Portable power supply current measurement

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How do you measure power supply current?

If your product relies on stable voltage and current delivery, routine power supply current measurement should be part of your process--especially before deployment or shipment. The most common method for measuring current is to place a multimeter in series with the circuit.

How to measure power supply current in a fixed circuit?

For best results, aim for a reading where the digits are active and not all zeros. This gives better accuracy and makes the data more useful in analysis. For repeated testing in a fixed circuit, placing a resistor of known value in series with the load can be a convenient and effective technique for power supply current measurement.

Why should you use a precision measurement DC power supply?

This not only adds to the cost of testing these devices but increases the complexity of the test system. Precision measurement DC power supplies like the Keithley Series 2280S are capable of measuring pulse currents as narrow as 140 ns and include the triggering features required to synchronize the measurement with the current pulse.

Can a high-performance current probe be used to measure power?

Using the measurement techniques described in this application note, accurate power measurements can be made using high-performance current probes (plus voltage probes) and a compatible oscilloscope, when proper setup techniques are applied.

With Series 2280S Precision Measurement Power Supplies, design and test engineers can make reliable, high quality measurements on narrow load current pulse waveforms, allowing ...

Precision Current Measurements on High-Voltage Power-Supply Rails Current is a signal that can provide valuable insight into how a system is operating. Under defined conditions, the amount of ...

Switching Power Supply Current Measurements There are many different switching power supply topologies available to meet system power requirements. DC-DC switching converters ...

By directly measuring the voltage and current output of the supply with the stepped load, we can visually

observe the recovery of the power supply feedback loop and make changes to the ...

This application note describes considerations and techniques for making accurate current measurements on power converters using an oscilloscope and a current probe. When used in ...

A guide for engineers on power supply current measurement. Covers multimeters, sensors, resistors, and techniques to measure output current

Current sensing is used to perform two essential circuit functions. First, it is used to measure "how much" current is flowing in a circuit, which may be used for power management in a ...

Portable network analyzers are essential for conducting energy audits as well as for reviewing the quality of the power supplied and the consumption in electrical installations. They ...

Time Electronics manufacture a wide range of portable test instruments for sourcing and measuring voltage and current. Products include handheld electrical simulators and sources, compact ...

Measure voltage, current, active power, reactive power, apparent power, power factor and harmonics with associated values Get accurate, precise results with 0.1% measurement ...

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