

Power Supply Unit Switching Test Plan



Overview

This Standard Test Procedure describes generic test to be performed on all power supplies. A Specification Control Drawing contains additions and/or deletions to. These are a high resolution DMM/data logging system with expansion slots for switching modules, which is the primary data acquisition device. These include Safe Operating Area (SOA), power losses, high-side gate drive, dynamic on resistance, control-loop response, output ripple, line current harmonics, power factor, real/apparent power and. An electronic load offers a broad range of operating modes, providing versatile loading configurations needed for characterizing and verifying dc power supply design specifications. Switching power supplies technology evolves, testing methods for design verification and product function require. 3D Interconnect Designer provides a flexible modeling and optimization environment for any advanced interconnect structure, including chiplets, stacked die, packages, and PCBs. Use 25+ X-Series applications to analyze, demodulate, and troubleshoot signals across wireless, aerospace/defense, EMI. A programmable AC test power supply is a "universal grid simulator" for switching power supplies, used on the production line to accurately, quickly, and automatically verify their reliable operation under various normal and abnormal power grid conditions worldwide. Why Is the Programmable AC Test. Switch mode power supplies (SMPS) have surpassed linear power supplies in efficiency and functionality, as well as their convenient size.



Article Content

Aug 27, 2025

Testing Switching Power Devices In-Circuit

Topics of this Brief include testing the response of a switch-mode power supply to a change in load or line, checking Safe Operating Area (SOA) and other useful topics.

Feb 14, 2026

Testing Switch Mode Power Supplies using the Infiniium EXR ...

Many Keysight oscilloscopes offer a broad range of power related measurements with the optional power measurements application. This application note will show you how to test switch ...

Jun 19, 2026

Power Supply Test Plan Overview | PDF | Power Supply ...

The document outlines a test plan for testing a power supply with 6 tests. Each test has an engineering specification number, what is being tested (e.g. mass, ...

Aug 12, 2025

Application of Programmable AC Test Power Supplies in Switching ...

Workflow: A robotic arm connects the switching power supply under test to the test fixture. Test software controls the programmable AC power supply, sequentially outputting a series of preset ...

Jan 24, 2026

How to Test Switch Mode Power Supplies | Keysight

Making accurate power measurements for switching applications requires equalizing the time delay between voltage and current probes. Learn how to characterize switch-mode power supplies with ...

Nov 06, 2025

Standard Test Procedure

This Standard Test Procedure describes generic test to be performed on all power supplies. This combined with the Test Data Sheet provides the parameters for verifying operation of the power supply.

Jul 23, 2026

Power Supply Testing using Model 7711/7712 GHz Multiplexer

DC power supply test diagram. Only one power supply is shown; additional switching channels would be used to connect multiple supplies to the measuring instruments.

Feb 02, 2026

Burn-in Testing Techniques for Switching Power Supplies

Using the TestPoint™ application development package, Keithley has developed an example program to perform a 72-channel switching power supply burn-in test that's similar to the system shown in ...

Dec 09, 2025

Double Pulse Testing: The How, What and Why

By adjusting the switching times T1, T2 and T3 the turn on and turn off waveforms of the Device Under Test (DUT) can be controlled and measured over the full range of operating conditions.

Jan 04, 2026

Switching Power Supply Testing Solution

Combine our power analyzer and high-power regenerative AC power supply and you can get a complete switching power supply testing system. The testing system's upper limit of measurement depends on ...

Nov 30, 2025

Power Supply Testing (with Electronic Loads)

In this test configuration for measuring power supply efficiency and power factor, the variable ac source provides measurements for input power and power factor.

Contact Us

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