

# PowerMeasure Systems

## PS354 System

### LEADING FEATURES

#### Power Device Analysis

- Device Saturation Voltage
- Transition Losses
  - turn on/off
- Conduction Loss
- Dynamic On-Resistance
- High Side Gate Drive
- Safe Operating Area

#### Modulation Analysis

- Step Response to Line and Load Changes
- View Soft Start Performance
- Pulse Width or Frequency Modulated Control Loop Analysis

#### Line Power Analysis

- RMS Voltage and RMS Current
- Apparent Power, Real Power
- Power Factor
- Conducted Emissions – Current Harmonics
- Precompliance to EN 61000-3-2



The PS354 package include a high performance oscilloscope, differential amplifier and probes, current probe, deskew calibration source and a comprehensive power software package.

### Measure Power with the New PS354 System

The PS354 is the most complete power supply test system available. It incorporates the full features of the LT354 model Waverunner oscilloscope, including fast sampling, long memory, easy to use front panel, extensive triggering and waveform math. The scope is paired with a differential amplifier, differential probe, current probe, deskew source and software specifically designed for switched-mode circuit analysis.

A power supply test system needs to meet the tough measurement challenges of a power conversion circuit. These include:

wide ranges of voltages (saturation voltages to rail voltage levels); wide range of currents; requirements to maintain circuit isolation when probing; wide range of signal frequencies and dv/dt; wide offset requirements with fast amplifier overdrive recovery; elimination of propagation delay differences with probes; math and gated cursors for quick and easy device loss measurements; and the integration of all test equipment components for ease of use. The PS354 system will meet these measurement challenges and provide the performance needed to confirm and build confidence in the reliability and operation of your power supply under all circuit operating conditions.

## LT354 SYSTEM COMPONENTS

### LT354

#### High Performance Waverunner-2 Oscilloscope

Includes Wavepilot, QuickZoom features. (An optional Advanced Trigger Package is available)

- 500 MHz Bandwidth, 4 Ch
- 250 kpts/ memory per Ch
- 1GS/s Single-Shot Sampling
- Memory Options of 1Mpts and 2 Mpts/ch

### DA1855A with DXC100A

#### Differential Amplifier and Probe Pair

- 500 Volt Peak
- 1000 Volt Differential
- DC to 100 MHz
- 100,000:1 CMRR
- 50 n sec Overdrive Recovery
- Precision Offset Generator

### AP015

#### Current Probe

- DC to 50 MHz
- Measure 30 Amps Continuous or 50 Amps Peak Current
- Probe Power and Control (Degauss & AutoZero)

### DCS015

#### Deskew Calibration Source

- Aligns Voltage Probe and Current Probe in Time
- Time correlated to 1 ns, 8 ns Risetime

### PMA1

#### PowerMeasure Analysis Software

- Power Device Analysis
- Modulation Analysis
- Line Power Analysis for EN61000-3-2

## ADDITIONAL POWER ACCESSORIES

### Active Differential Probes

#### ADP305 (100 MHz), ADP300 (20 MHz)

- 1400 Volts Peak Differential Voltage
- 1000 VRMS CAT III Common Mode Voltage

ADP30X high-voltage active differential probes are safe, easy to use probes, ideally suited for measuring power electronics. The ADP300's 20 MHz bandwidth is good for troubleshooting low frequency power devices and other circuits where the reference potential is elevated from ground. The ADP305's 100 MHz bandwidth is designed for measuring the high-speed floating voltages found in today's high-performance power electronics. With the ProBus® interface, the ADP30X becomes an integral part of the oscilloscope. Probe power and control of the attenuation, offset and bandwidth limit are performed through the oscilloscope or through remote control commands.

### Current Probes

#### CP015

- 15 A Continuous, 50 A Peak Pulse
- 50 MHz Bandwidth

#### CP150

- 150 A Continuous, 500 A Peak Pulse
- 10 MHz Bandwidth

Measuring AC, DC, and impulse currents is easier with the CP015 and CP150 current probes. Based on a combination of Hall effect and transformer technology, these probes are ideal for making accurate power measurements. Probe power is provided from the oscilloscope eliminating the hassle of changing batteries or the cost associated with external supplies. The probes become an easy-to-use component of an integrated measurement system with Degauss, autozero, and scale factors controlled by the oscilloscope. All measurements and units are correct without the need to compensate for attenuation differences between the probe and the oscilloscope.

Ordering Information	Product Code
LT354 Four channel 500 MHz DSO with 250 kpts mem/ch*, DA1855A, DXC100A, AP015, DCS015 and PMA1 Software.	<b>PS354</b>
1 Mpt/ch	Option M
2 Mpt/ch	Option ML
High-Voltage Active Differential Probe	20 MHz, 1400 Volts ADP300
High-Voltage Differential Probe	100 MHz, 1400 Volts ADP305
15 Amp DC/AC Current Probe	50 MHz, 50 Amp Peak Pulse CP015
150 Amp DC/AC Current Probe	10 MHz, 500 Amp Peak Pulse CP150

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