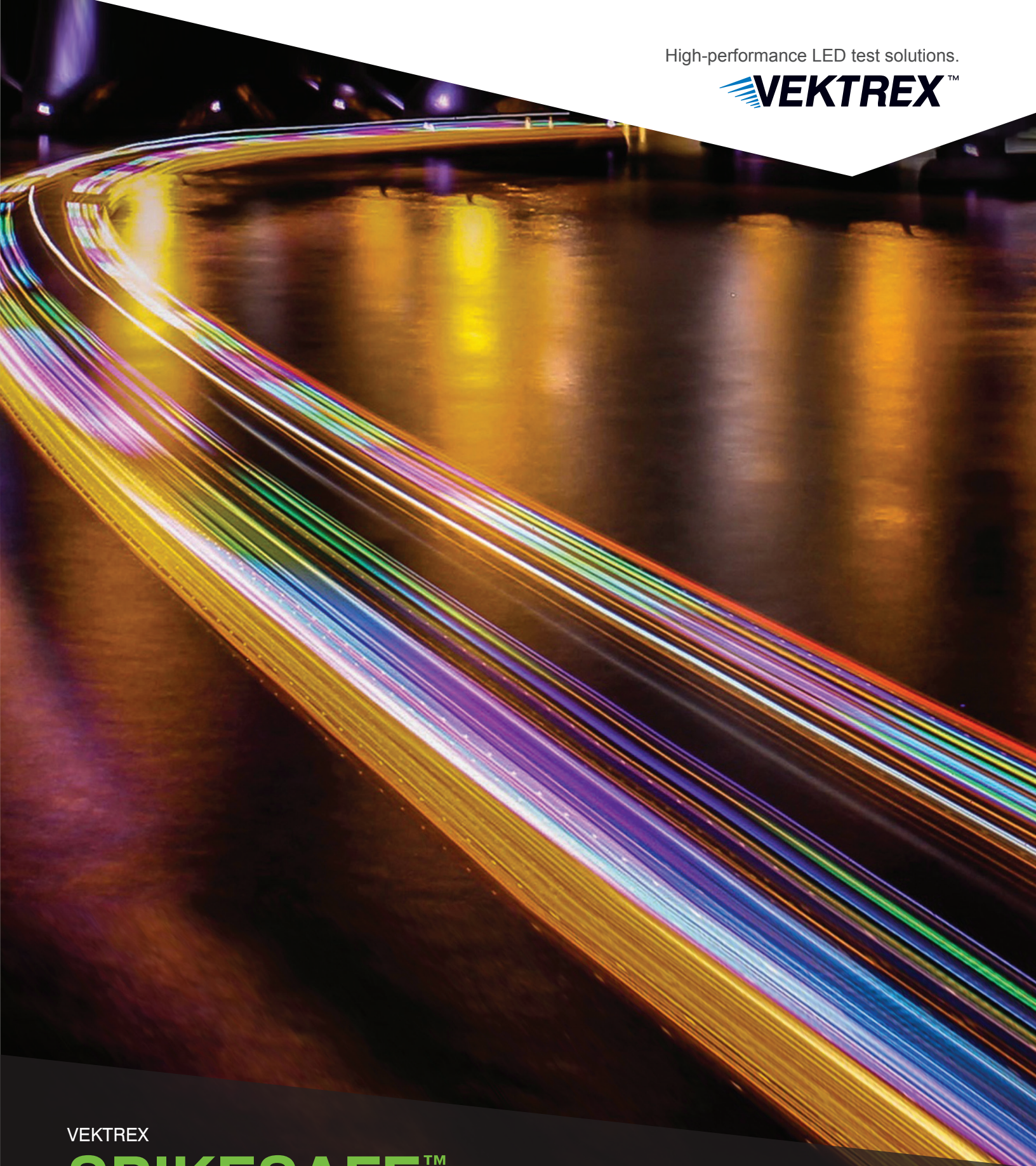
High-performance LED test solutions.

VEKTREX™



VEKTREX

SPIKESAFE™

Precision Pulsed Current Sources

PERFORMANCE SERIES

IDEAL PULSING FOR ENHANCED REPEATABILITY.

SpikeSafe™ Performance Series Precision Pulsed current sources deliver precise pulsing with microsecond rise times and low-jitter triggering for improved test accuracy and repeatability.

SpikeSafe™ Performance Series current sources use continuous power conversion to deliver sustained output power – without duty cycle limitations. Optimized for precise and repeatable LED and laser diode testing, these current sources include DC, continuous pulse, and single pulse current modes, pulse synchronization, and precision triggering to support a broad range of applications.

Single and multiple source channels.

Single and multiple source channel models provide testing flexibility by allowing independent, or grouped pulse channel control – with nanosecond synchronization across all source channels.

Pulse microsecond rise time.

SpikeSafe Precision Pulsed current sources create highly repeatable pulses ranging from 10μs to 10s, or longer when using the Modulated Current option. Microsecond rise times reduce errors when performing continuous pulse photometric measurements. Continuous pulse mode allows high power LED measurement with little junction heating – improving accuracy, repeatability and product yield.

Low jitter trigger.

SpikeSafe hardware-based timing circuitry reduces trigger jitter – improving the stability and repeatability of spectrometer and sampling voltmeter measurements.

Programmable load tuning.

Programmable load tuning compensates for load conditions, cable impedance, and length. The resulting clean pulses have little overshoot, even with cable lengths as long as 6m.

Software simplicity.

The Vektrex Control Panel software application provides turn-key control of the SpikeSafe current sources and optional high-speed sampling voltmeters and spectrometers. This software pairing provides familiar LED and laser diode source/measure capabilities – with the added benefit of high-speed sampling, pulse visualization, and light measurement.

For customized software development, the SpikeSafe Software Development Tool is an interactive SCPI sequence builder. This tool speeds development by enabling the build and execution of complex command sequences.

Other software supports additional test applications including thermal resistance, Tj, modulated current, and reliability testing.

Confidence.

Whether you're expanding existing test capacity, or stepping up to higher-power devices, SpikeSafe current sources provide the precision and versatility to support testing needs now, and in the future. Leading LED and SSL manufacturers and test labs worldwide rely on Vektrex systems and components for unmatched power, capacity and reliable performance.

Learn more about Vektrex SpikeSafe Performance Series current sources at vektrex.com.

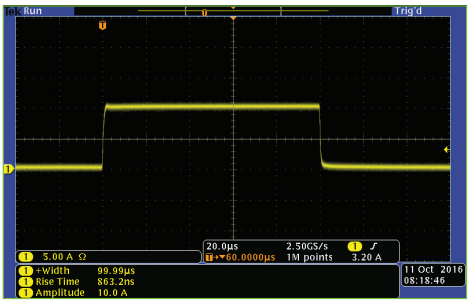
Available in single and multiple source channels with optional modulated and bias current.

THE CURRENT SOURCE OF CHOICE FOR HIGH POWER LED TESTING.

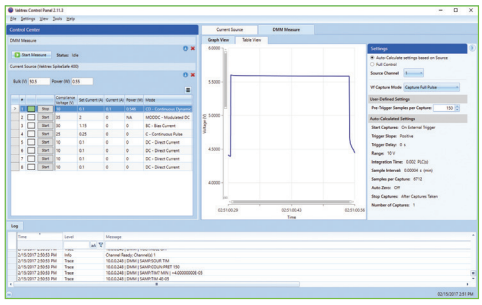
Continuous power conversion for sustained output power capability – without pulse width or duty cycle limitations. Junction heating and uncertainty in LED measurements can be reduced when using SpikeSafe Performance Series current sources and testing methods such as Continuous Pulse mode.

Key specifications

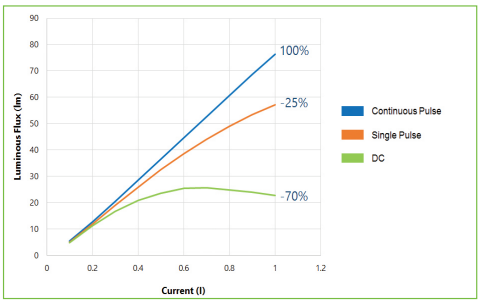
- Full suite of models supporting low, mid and high currents
- Single and multiple source channel models
- Maximum compliance voltage to 400V
- DC, single pulse, and continuous pulse modes in one instrument
- Fast pulse rise times – 200ns to 5μs
- Minimum pulse width 10μs
- Pulse width accuracy 1μs for most models
- Trigger jitter <10ns ensures repeatability
- Pulse width jitter <30ns
- Capture light and Vf in the same operation; no delay
- Settable, multiple source channel pulse synchronization +/- 1μs
- Fast execution for production applications



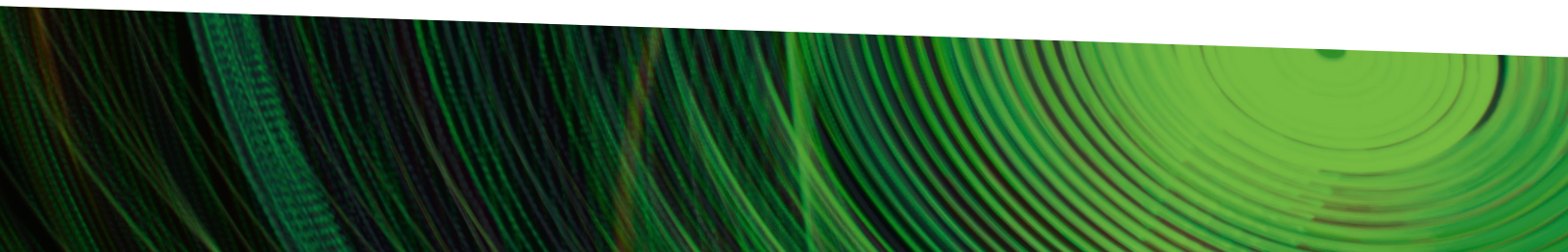
SpikeSafe Precision Pulsed current sources feature precise, accurate triggering and microsecond rise times resulting in square pulses down to 10μs width.



Easy to use Control Panel software application with Vf capture of pulse shape shown.



SpikeSafe Performance Series current sources allow you to take advantage of advanced test methods that minimize LED heating for more accurate measurements.



GLOBAL SUPPORT.

Our global representatives and support centers are ready to provide industry-leading expertise and local service.

Vektrex designs and manufactures high-performance LED test solutions for leading manufacturers and LM-80 labs worldwide. Industry-leading SpikeSafe™ current sources provide high-power DC and performance-pulsed capability optimized for next-generation LED and SSL products. Solutions include reliability, LM-80 and light measurement systems, thermal control chambers, software and components.

For more information about Vektrex products and solutions visit vektrex.com

858.558.8282 | info@vektrex.com | vektrex.com

High-performance LED test solutions.

VEKTREX™