

### Applications

- High Voltage Supply & Pulsing
- Thermal Characterization
- Leakage Measurement
- Device Stress Testing



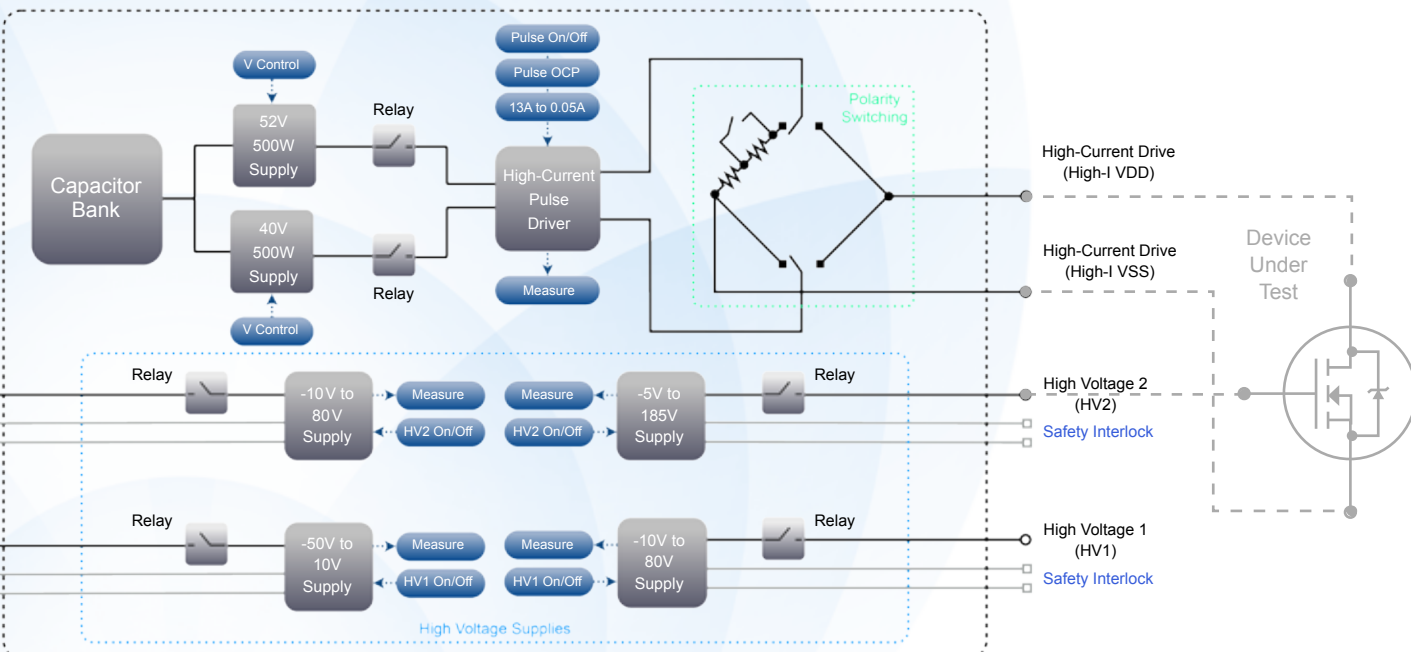
### Overview

The RI8589 FET Pulser provides an all-in-one production solution for power device supply and parametric measurement. With a current drive and measurement range of 1 $\mu$ A to 20A, this instrument enables evaluation of power FETs, BJTs, and IGBT devices as well as wide band-gap materials such as GaN and SiC. The RI8589 enables precise, small on-resistance measurements and 5 $\mu$ s wide pulse and capture for complete power device characterization, temperature stress, and failure analysis.

### Key Features

- *DC Parametric Measure & High-Power Supply in One Instrument*
- *High-Power Polarity Switching without Re-Cabling*
- *$\mu$ s Burst, 1kW High Power Pulse Capability*
- *1Msps Digitizer for Pulse Profile Capture*

### Block Diagram



### Performance

Supply	HV1   HV3	HV2	HV4	Pulser	Reverse Diode Test
$V_{RANGE}$	-10V to +80 V	-5V to 185V	-50V to +10V	+8V to +52V	-50V to -5V
$V_{SET}$ Resolution	5 mV	20 mV	20 mV	5 mV	-
$I_{MAX}$	10 mA	10 mA	10 mA	23A	10A
Settling Time	10 $\mu$ s	10 $\mu$ s	10 $\mu$ s	~1 $\mu$ s	-
Measure					
Range	1 $\mu$ A to 20 mA	1 $\mu$ A to 20 mA	1 $\mu$ A to 20 mA	10 mA to 23 A	-10mA to +10mA
Accuracy	0.1 %	0.2 %	0.2 %	0.3 %	0.1%
Meas. Rate	1 Msps	1 Msps	1 Msps	1 Msps	1 Msps
$R_{OUT}$	100 $\Omega$   1 k $\Omega$ <sup>1</sup>	100 $\Omega$   1 k $\Omega$ <sup>1</sup>	100 $\Omega$   1 k $\Omega$ <sup>1</sup>	0.04 $\Omega$	2.5 $\Omega$

<sup>1</sup>Current measurements below 100  $\mu$ A use 1 k $\Omega$

### Inputs/Outputs



### Cassini Test Systems

A versatile, high-speed, automated test solution for analog, mixed-signal, RF, and millimeter-wave devices.

Cassini provides a modular base architecture that is fully configurable via Test Instrument Modules (TIMs) to meet the needs of any IC, wafer, or module test requirement.

Each TIM contains internally-cooled, RF-shielded instrumentation, signal distribution, and blind mate interfacing to provide targeted test resources and integrate to build up a complete production test platform.

Combined with Roos Instruments' integrated test software, Cassini can be configured to any application for maximum performance, true low cost of test, and the industry's fastest test times.

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