

Applied Test Resources

PFM1010

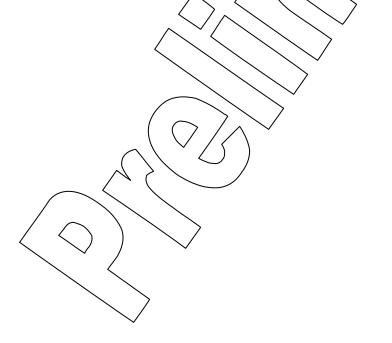
Floating Power FET Module

The PFM1010 Module is a precision instrument capable of measuring all common DC parameters in a power MosFet as well as many of the AC parameters. This module uses some very innovative techniques to make it possible to measure parameters like Rdson down into the sub-million-ohm range. The use of a proprietary synchronized sampling measurement made possible by the specialized circuitry incorporated into the module, permits the measurement of this very challenging parameter.

The PFM1010 incorporates 1 Pulse power supply capable of delivering ±50A / ±50V for a period of up to 0.001 seconds. The re-charging time is kept to a minimum by making available up to 1A to charge the capacitor bank. With this, a typical test that requires up to 50A of current for a small pulse of up to 500 uS can be performed without adding any recharging time. Additional modules are a programmable pulse generator to provide gate drive for the pulse measurements, and a 2000 V source to perform leakage & breakdown tests. As an option, the PFM1010 can be ordered and configured with a time measurement unit that periods parameters such as Ton and Toff to be measured.

SPECIFICATIONS

Pulse Power Source	4-quadrant Pulse power source. \$50V \(\frac{1}{2} \) 50A. Continuous operation at 50 mA, 1A
	charge current. (Voltage ranges, 8 current ranges. 14 Bit programming resolution.
Dual Continuous Power Source	≥50 V, ±50 mA Asquadrant Power source 14 Bit programming resolution
High Voltage Supply	√ 0,2000 V voltage supply-1mA Max current. 14 Bit programming resolution
Programmable Timing Generator	Dual generator capable of generating pulses of ± 10 V. Pulse width = 100 nS to 8 .
Time Measurement Unit (Optional)	2 - Channels, 5 nS resolution and accuracy on single shot mode.
Measure Module (±2008V in 28 Ranges. Synchronized Sampling Measurement circuitry. 2 differential
	input lines (4 optional for dual devices). 16 Bit Resolution. ZTA mode



^{*}All specifications are subject to change without notice. Publishing Date: May 26, 2004