



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 $R_{ds(on)}$ 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 $\pm 50A / \pm 50V$ 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 μs 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 permits parameters such as T_{on} and T_{off} to be measured.

SPECIFICATIONS

Pulse Power Source	4-quadrant Pulse power source: $\pm 50V / \pm 50A$. Continuous operation at 50 mA, 1A charge current. 8 Voltage ranges, 8 current ranges. 14 Bit programming resolution.
Dual Continuous Power Source	$\pm 50 V, \pm 50 mA$ 4-quadrant 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 $\pm 10V$. Pulse width = 100 nS to 8 .
Time Measurement Unit (Optional)	2 - Channels, 5 nS resolution and accuracy on single shot mode.
Measure Module	$\pm 2000V$ in 20 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.
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