Pulsed IV Supply

Datasheet / 2026.05

Models:

- PIV-MAIN
- PIV-30V-BP
- PIV-280V

Maury Pulsed IV Supply

The new Maury MW PIV series is a fully integrated Pulsed IV power supply enables accurate IV characterizations in quasi-isothermal conditions. The integrated solutions includes 3 modules:

PIV Main:

> High Voltage AC/DC power supply module

PIV- 30V-BP:

> Bipolar +/-30V gate pulsed IV module

PIV-280V:

> 280V drain pulsed IV module

Main Features:

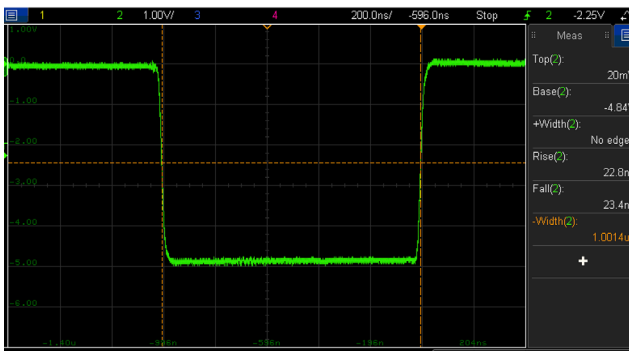
> Integrated Power supply and measurements modules
> Wide range of Pulsed and DC voltage settings: +/-30V (Gate) and 280V (Drain)
> High resolution DC and Pulsed IV measurements with unique 10ns time resolution
> Integrated with InsightPro (Maury Device Characterization SW Suite) for modelling and validation analysis
> Measurement and Pulsed trigger for S-parameters and fast power measurements
> Open source SCPI commands
> SW enabled sense for both Gate and Drain
> 3 measurement range to increase current accuracy
> 2 setting range for Gate and Drain rise time (FAST, SLOW)
> Touch Screen Display with local mode for monitoring and control

Technical Specifications:

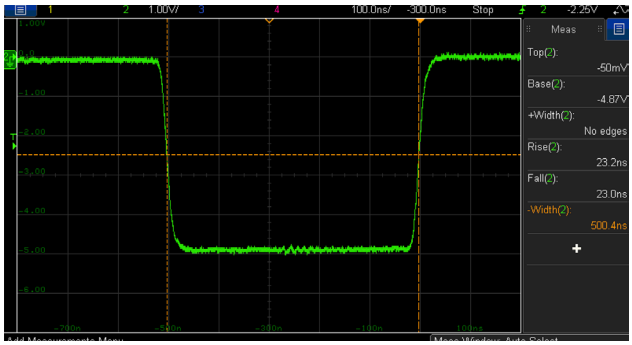
	Specification	Unit	PIV-30V-BP	PIV-280V
Operating Range	Voltage	V	+/-30	280
	Pulsed Current	A	+/-1.5	40
	DC Current	A	0.4	6
	Pulsed Power	W	15	3200
	DC Power	W	4	180
Setting the Pulsed Voltage	Voltage Setting resolution	bit	16	20
	Typical Rise/Fall Time (10-90%)*	ns	25	30
	Minimum Pulsed Width	ns	200	
	Maximum Pulsed Width	ns	DC	
	Output Impedance	Ohm	105/15	5/0.5
Measuring the Pulsed IV	Voltage and I ADC resolution	bit	16	16
	Timing Resolution	ns	10	
	Current Range	A	1.5/0.16/0.01	40/4/0.1
	Noise Current**	uA	15/1/0.1	120/50/2
Output Connector			BNC female	BNC female

**Fast Mode. Slow Mode will be typical 50/60 ns*
*** Avg 100*

GATE

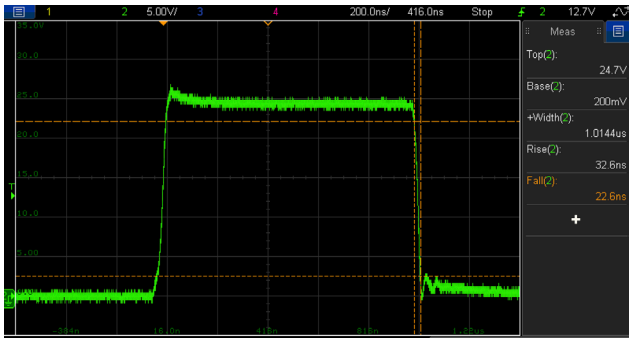


OPEN, 1 µs -5V

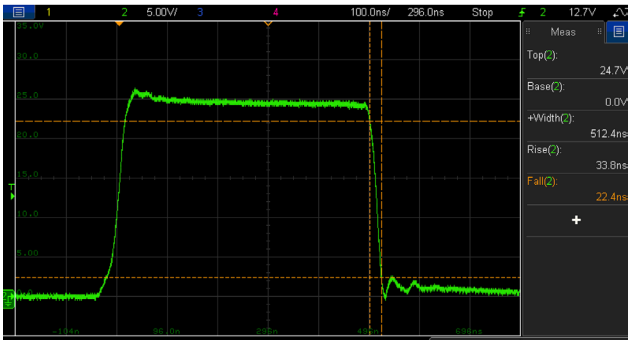


OPEN, 500 ns -5V

DRAIN



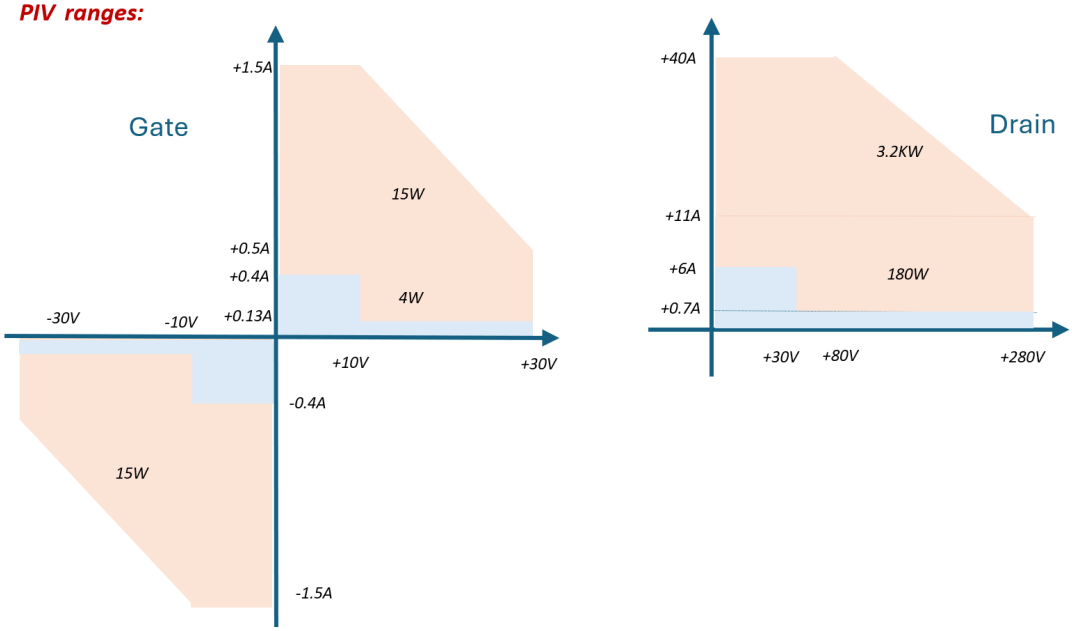
OPEN, 1 µs -+25V



OPEN, 500 ns +25V

Example Timing:

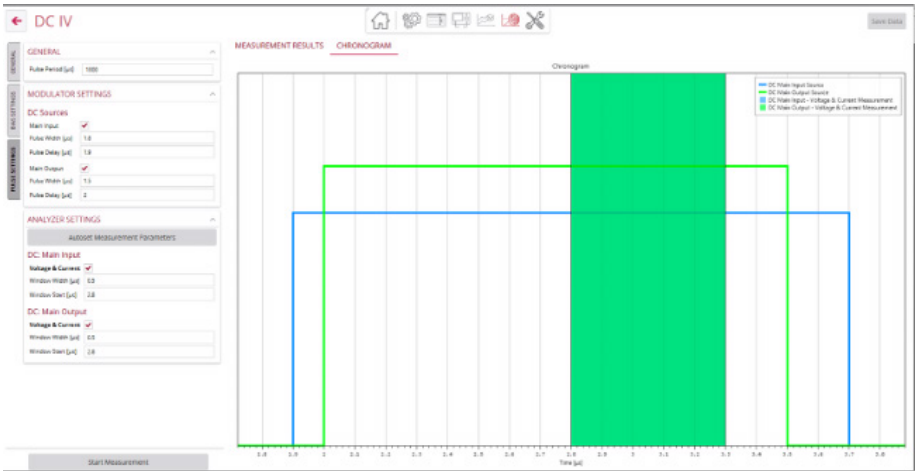
PIV ranges:



InsightPro

InsightPro SW integration for:

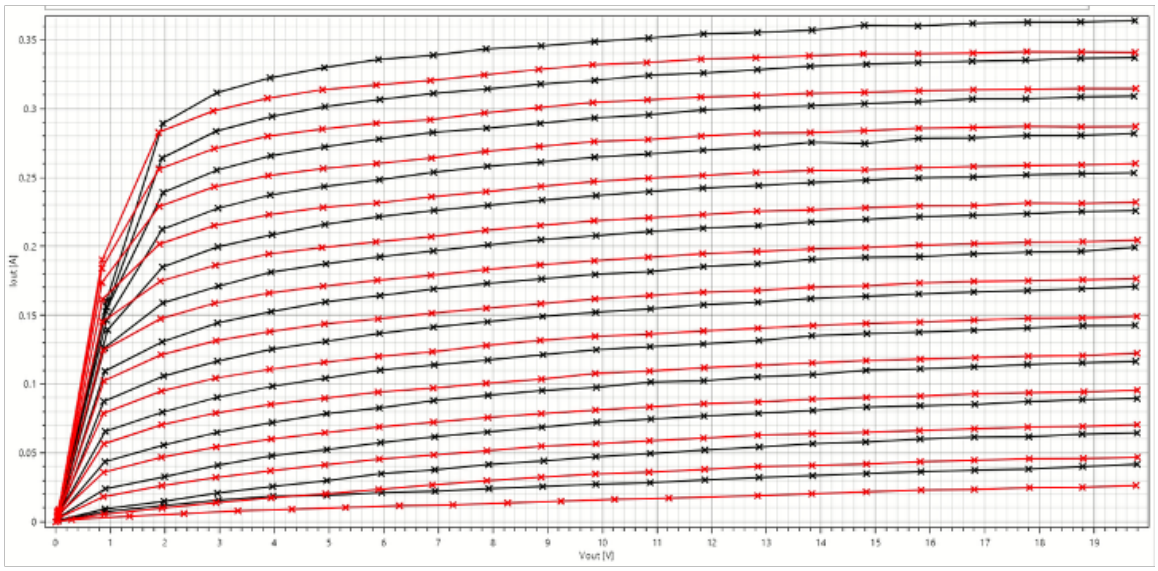
- DC IV measurements
- Pulsed IV measurements
- Pulsed S-parameters
- Waveform analysis



Example DUT:

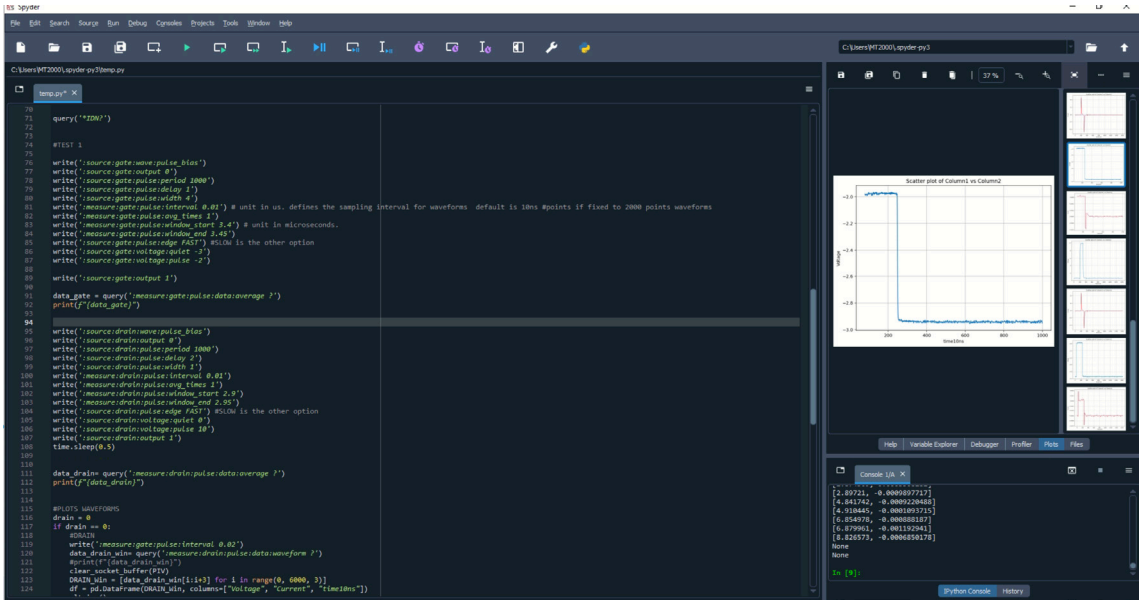
- Fixture DUT GaN
- Including bias tee to improve stability

PW 5us 1% DC
PW 1us 1% DC



Open SCPI Commands:

(python example)



Front Panel

Status

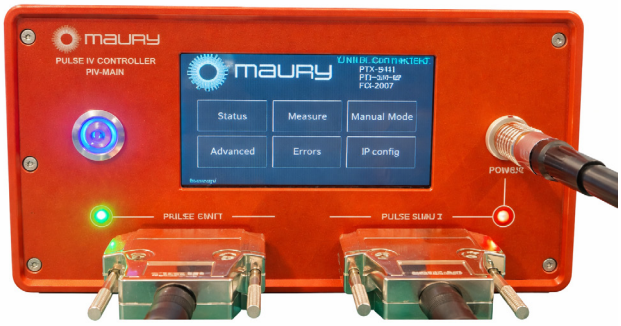
- > ON/OFF Status
- > CW/Pulsed mode
- > Set Values

Advanced

- > FW version
- > Temperature

Measure

- > Pulsed settings (width, period)
- > Measurement values



Errors

- > Log of Errors
- > Error Message

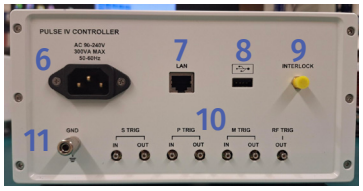
Manual Mode

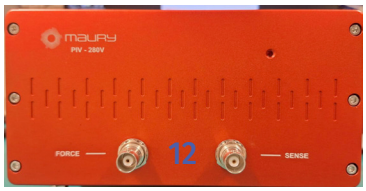
- > Set parameters without external SW

IP config

- > IP settings

Connections and Connectors

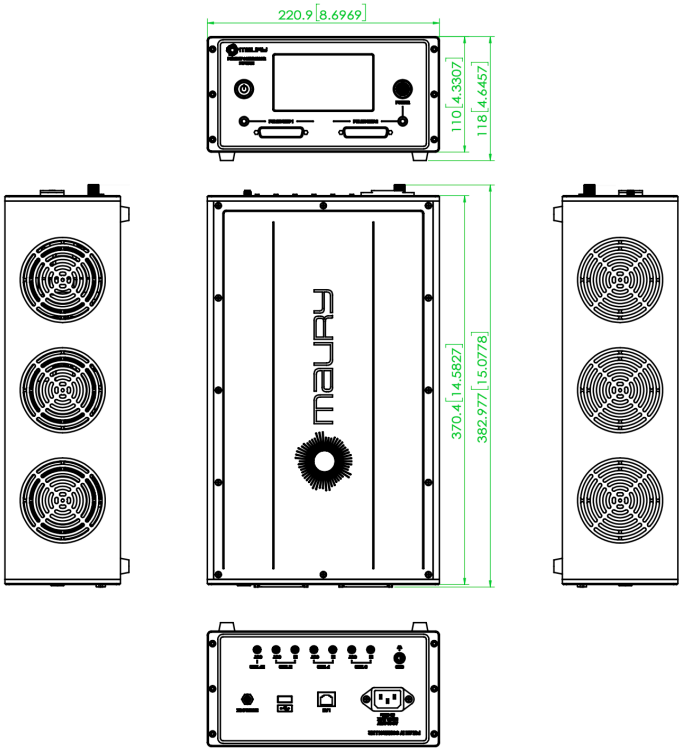


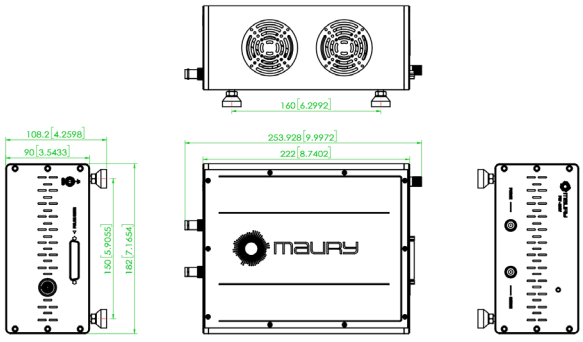


Main Module

1. Turn ON/OFF button
2. Drain high Voltage supply
3. Drain low voltage connection
4. Gate low voltage connection
5. LED Gate and Drain, ON when are connected
6. AC connection
7. LAN connection
8. USB for FW upgrades
9. Interlock
10. Trigger
    - > Synchronization (IN/OUT)
    - > Pulse (IN/OUT)
    - > Measure (IN/OUT)
    - > RF (OUT TTL)
11. Ground
12. Drain Force and Sense BNC
13. Drain low voltage connection to main
14. Drain high voltage connection to main
15. Gate Force and Sense BNC
16. Gate low voltage connection to main

Dimensions





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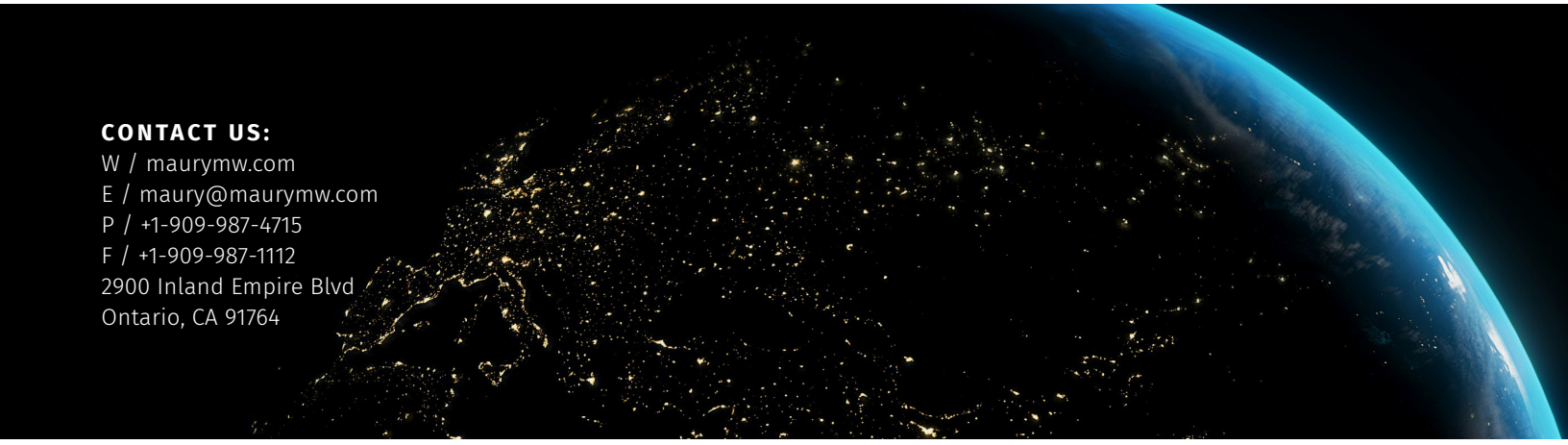

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