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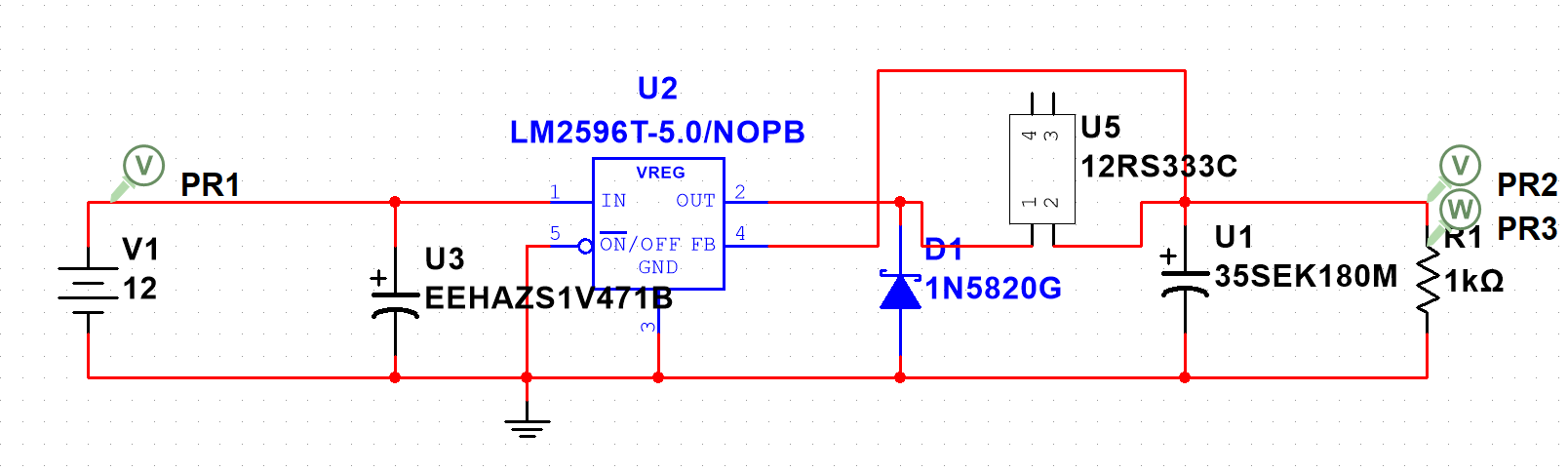
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# LM2596 5.0V Fixed Output Result

Schematic:



With 1 ohm load,

A picture containing chart

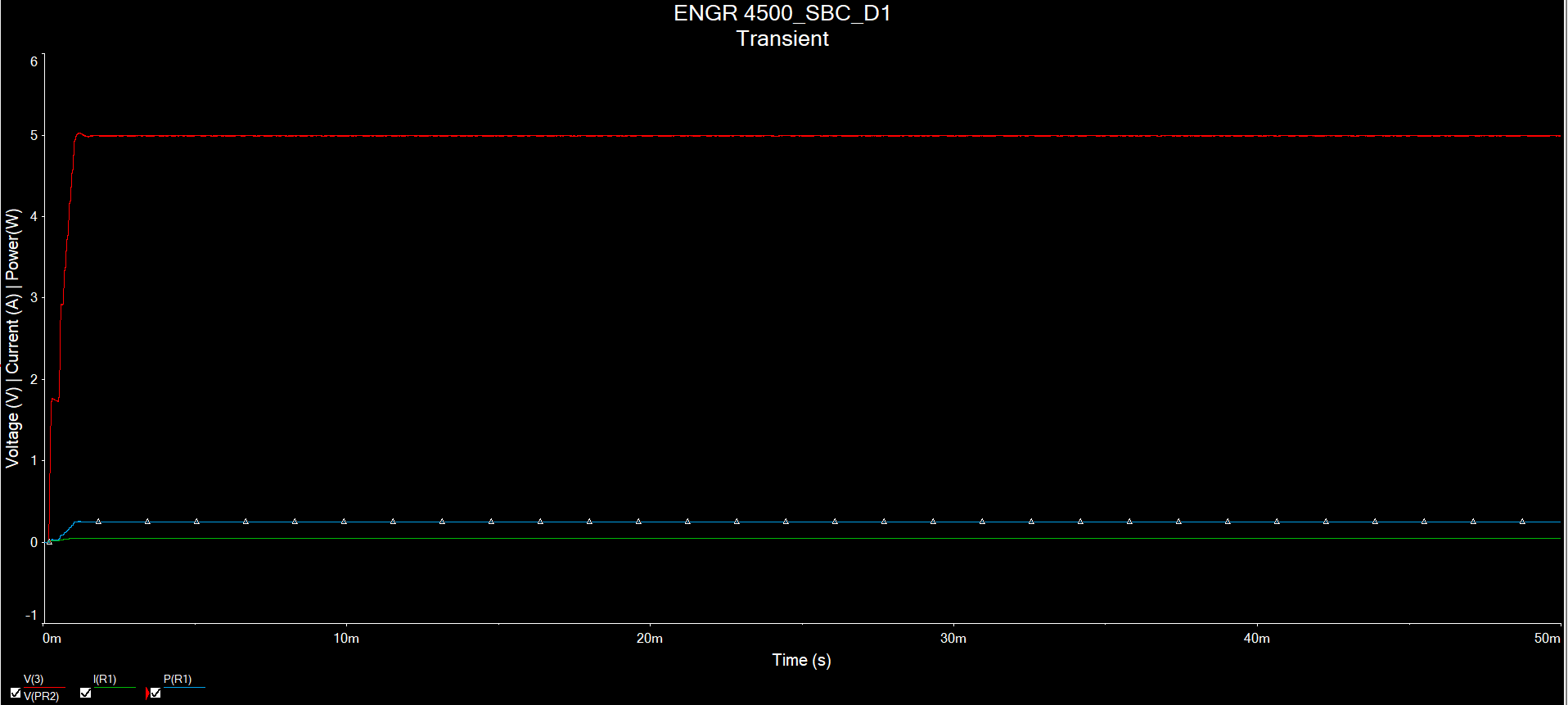
Description automatically generated

With 10 ohm load,

Text

Description automatically generated with medium confidence

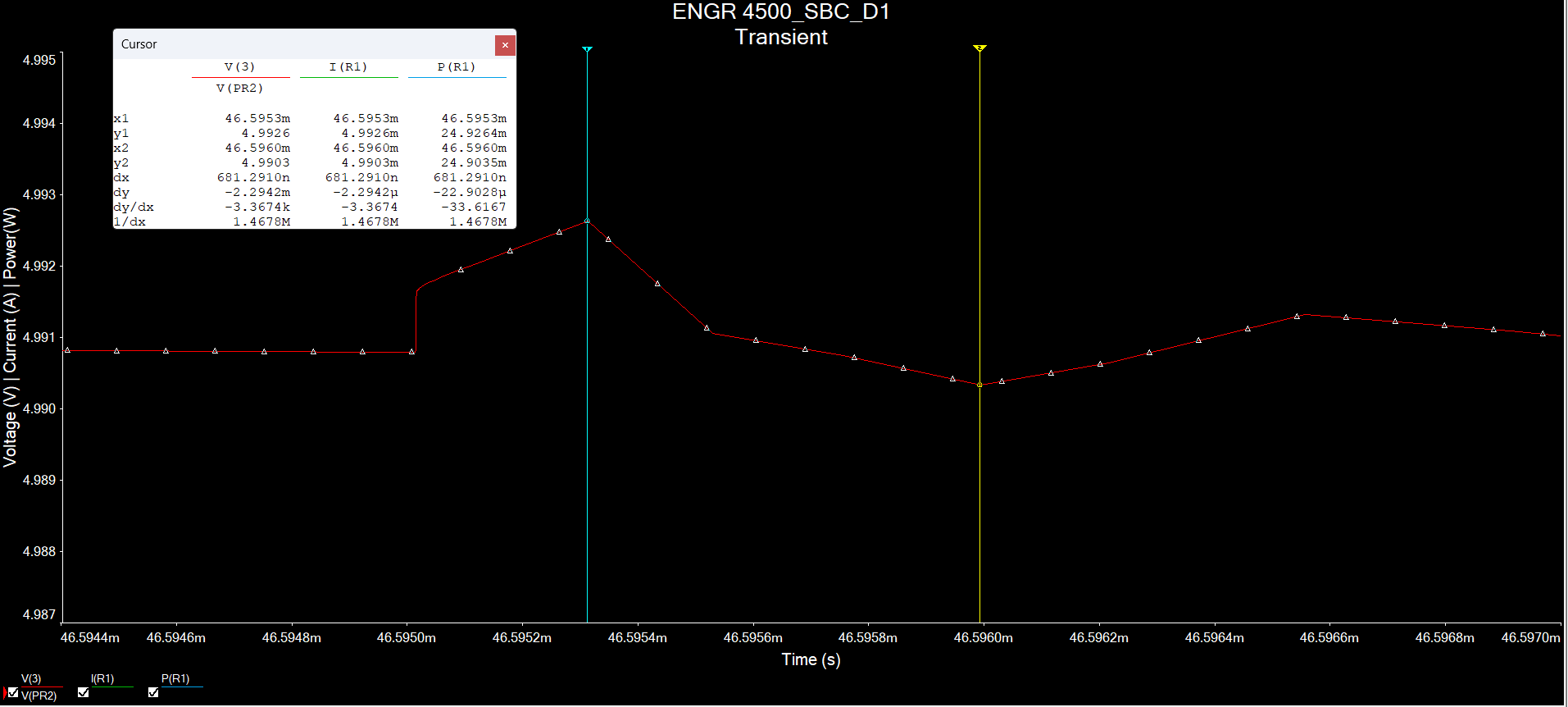
With 100 ohm load,



With 1k ohm load,

Text

Description automatically generated with low confidence



Max Voltage: 4.9912V and Min Voltage: 4.9882V. Difference:3\*10^-3V

Notes

* Current draw depends on resistor load (i.e 50mA for 100 ohm)
* Voltage hangs around 4.99V to 4.998V (never fully reaches 5V)
* There is voltage ripple around the output (noticeable for lower resistive loads)

# LM2596 Previous Designs

## LM2596 Design 1 using 744770133 inductor

Schematic Design

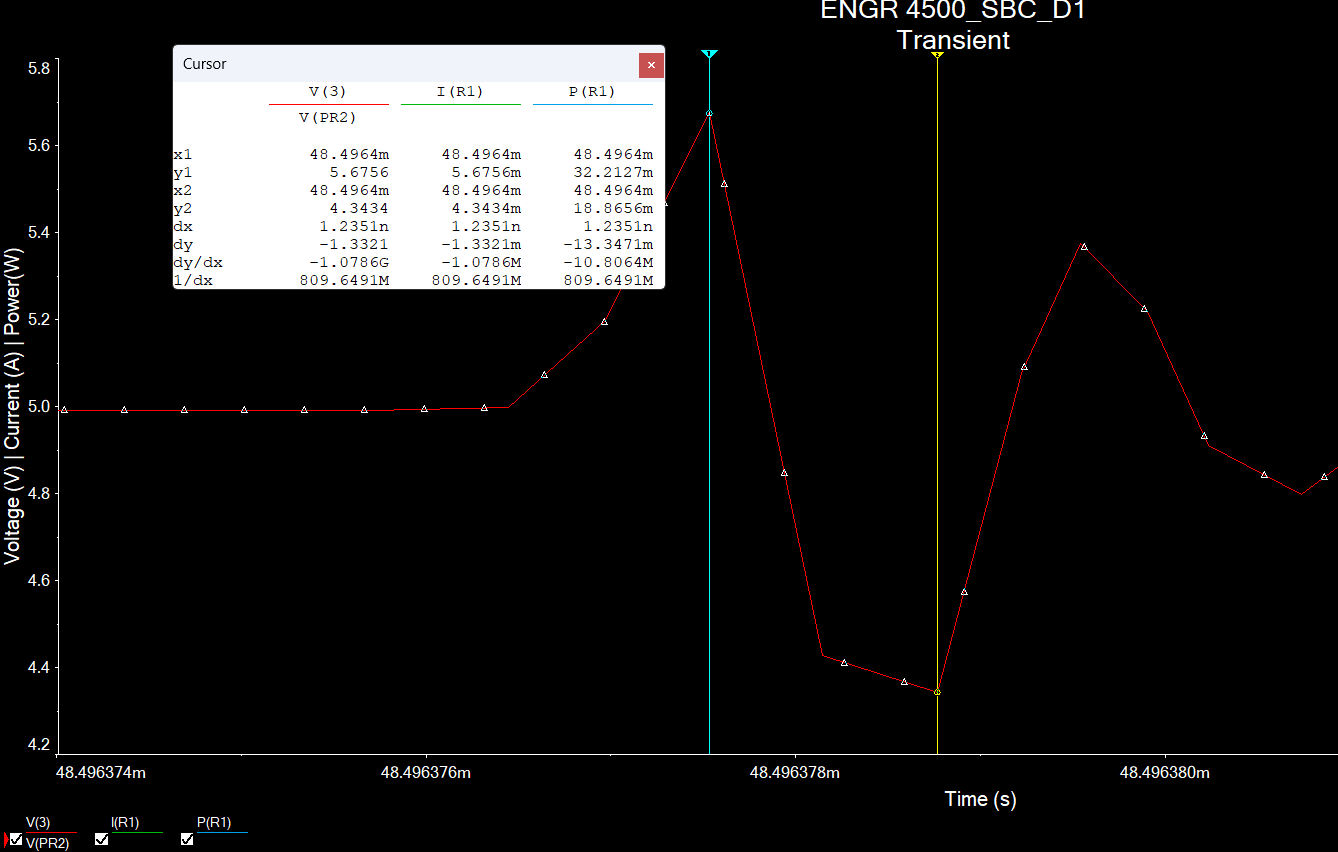
Graphical user interface, application

Description automatically generated

Simulated Results

A picture containing timeline

Description automatically generated



Max Voltage: 5.6756V and Min Voltage: 4.3433V

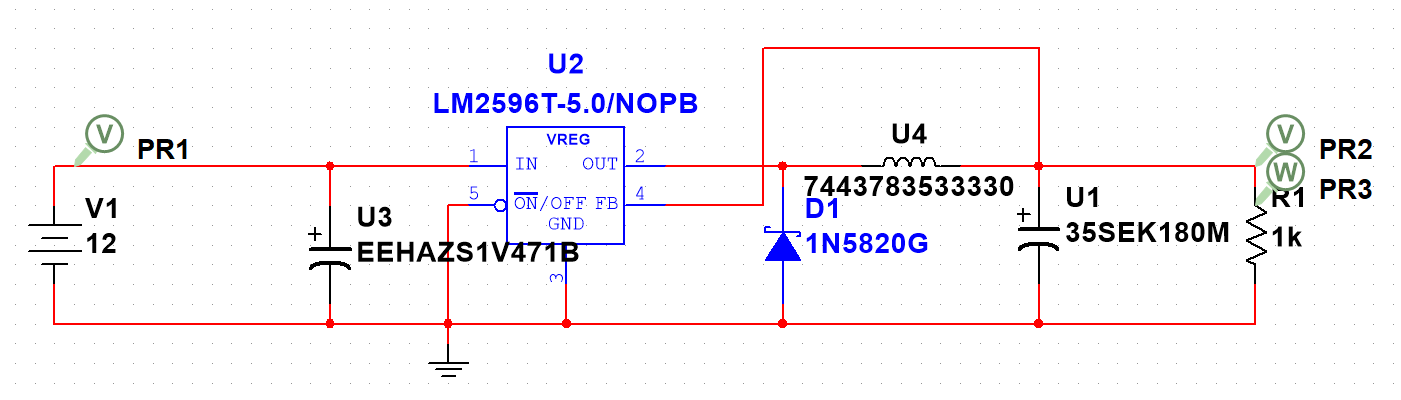
Difference between them is 1.3323V

Chart

Description automatically generated

## LM2596 Design with 7443783533330 inductor

Schematic:



Simulation:

A picture containing timeline

Description automatically generated

A picture containing text, indoor, screen, electronics

Description automatically generated

Max voltage: 6.5462V and Min Voltage: 2.8625V. Difference:

## LM2596 Design with 744131 inductor

Schematic:

A picture containing application

Description automatically generated

Simulated Result:

A picture containing timeline

Description automatically generated

A screenshot of a computer screen

Description automatically generated with medium confidence

Max Voltage: 5.6604V and Min Voltage: 4.1048V

Difference: 1.5556V

## LM2596 Design Ideal

Schematic

