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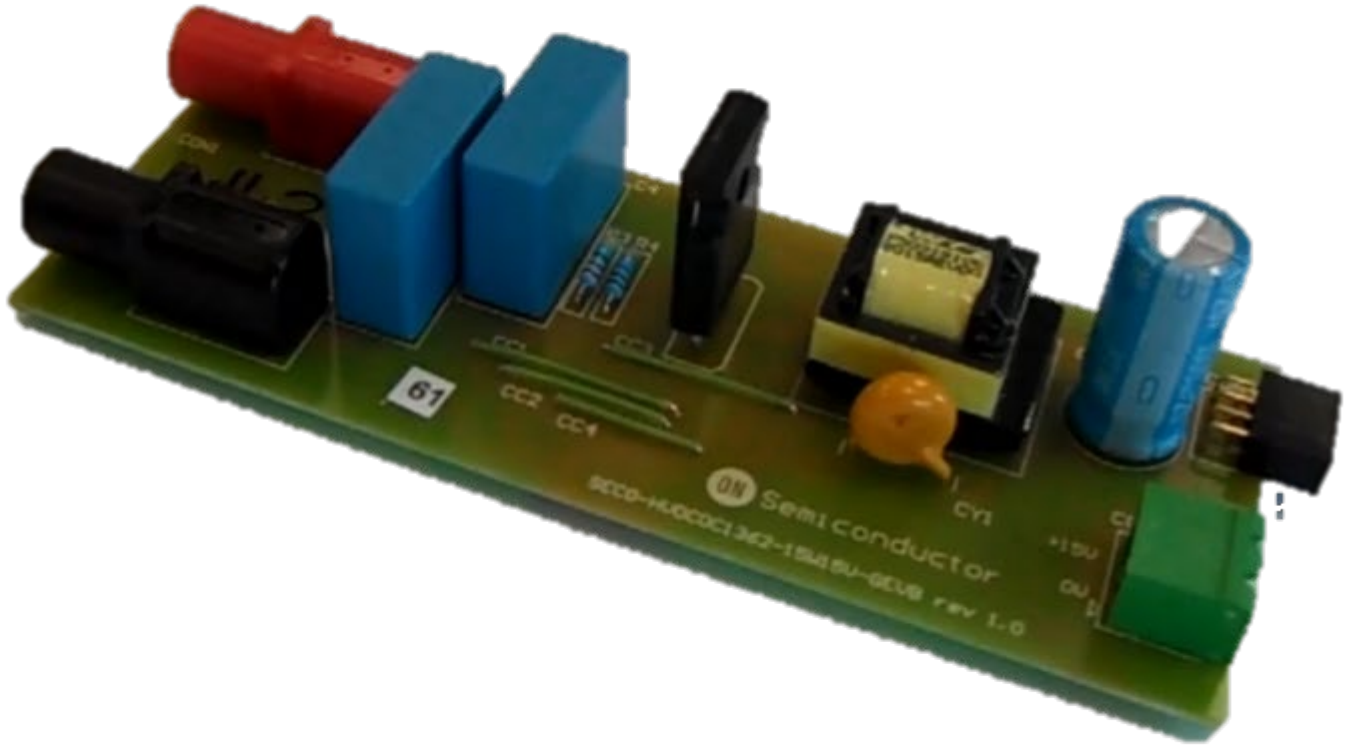
High voltage Auxiliary power supply 250V – 900VDC/15VDC@15W testing rev. 1.0

SECO-HVDCDC1362-15W15V-GEVB

Public Information

Automotive QR Fly-back:
250V – 900V DC in / 15V DC out @15W
SECO-HVDCDC1362-15W15V-GEVB

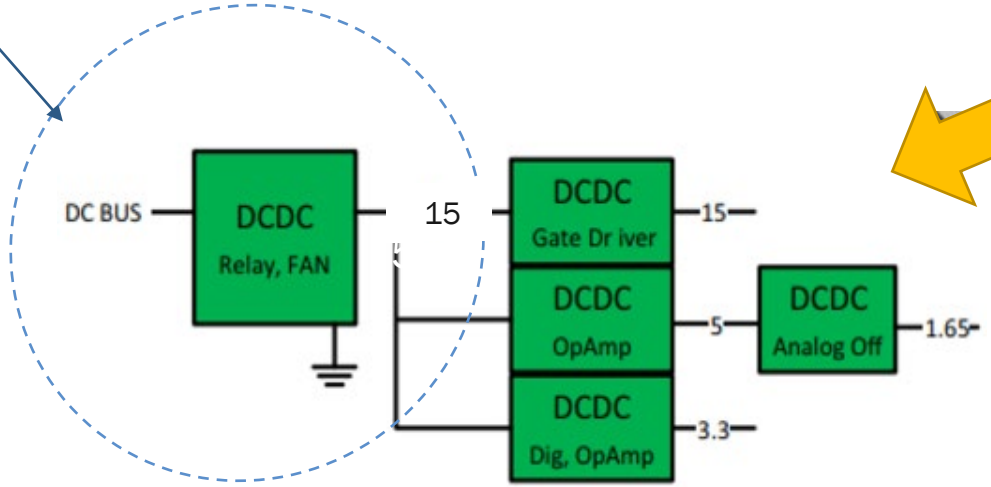


Looking at the system level – Auxiliary power solutions

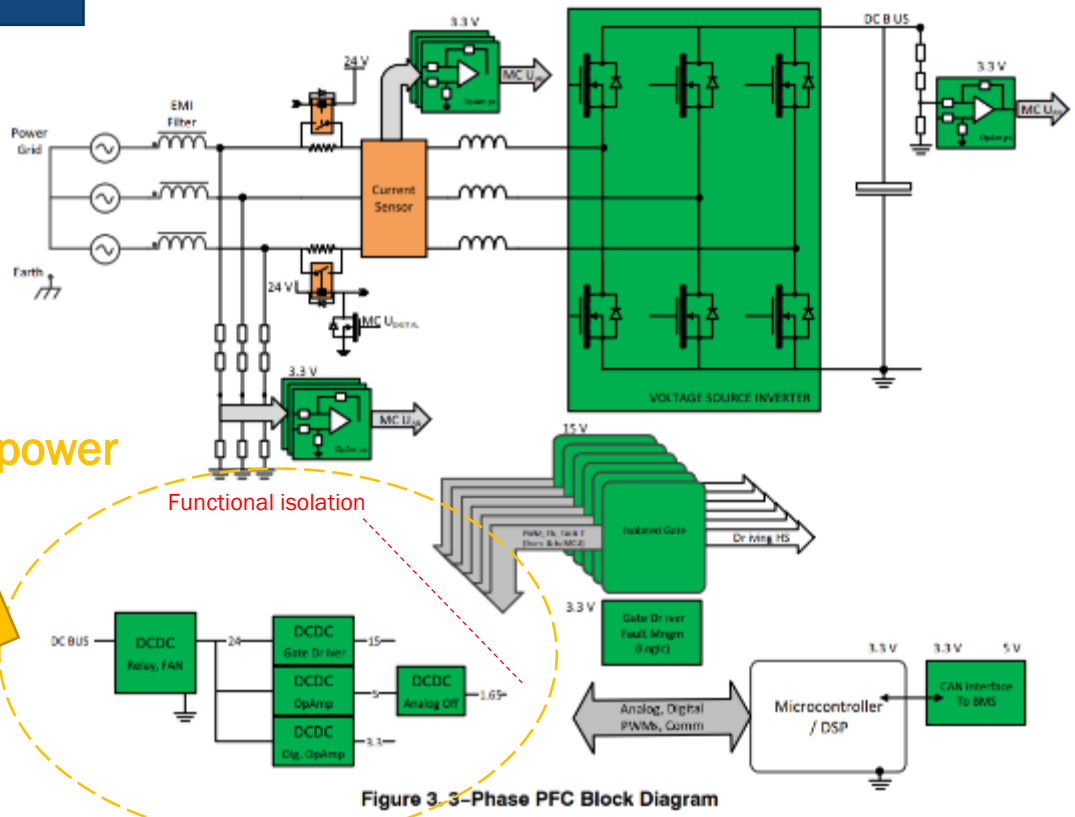
Auxiliary Power supply - NCV1362
PSR Flyback – 250-900V/15V 15W

15W

High voltage Aux. power supply



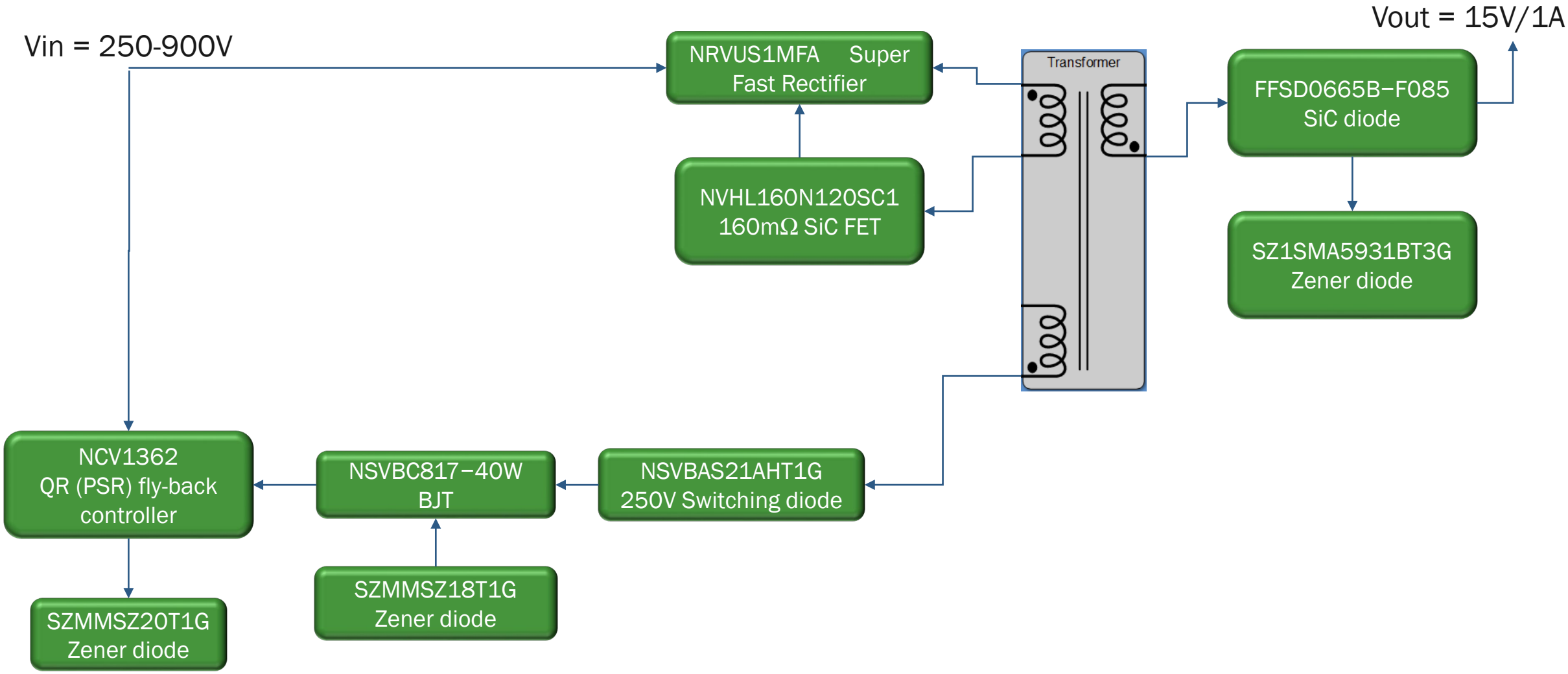
Automotive power train system



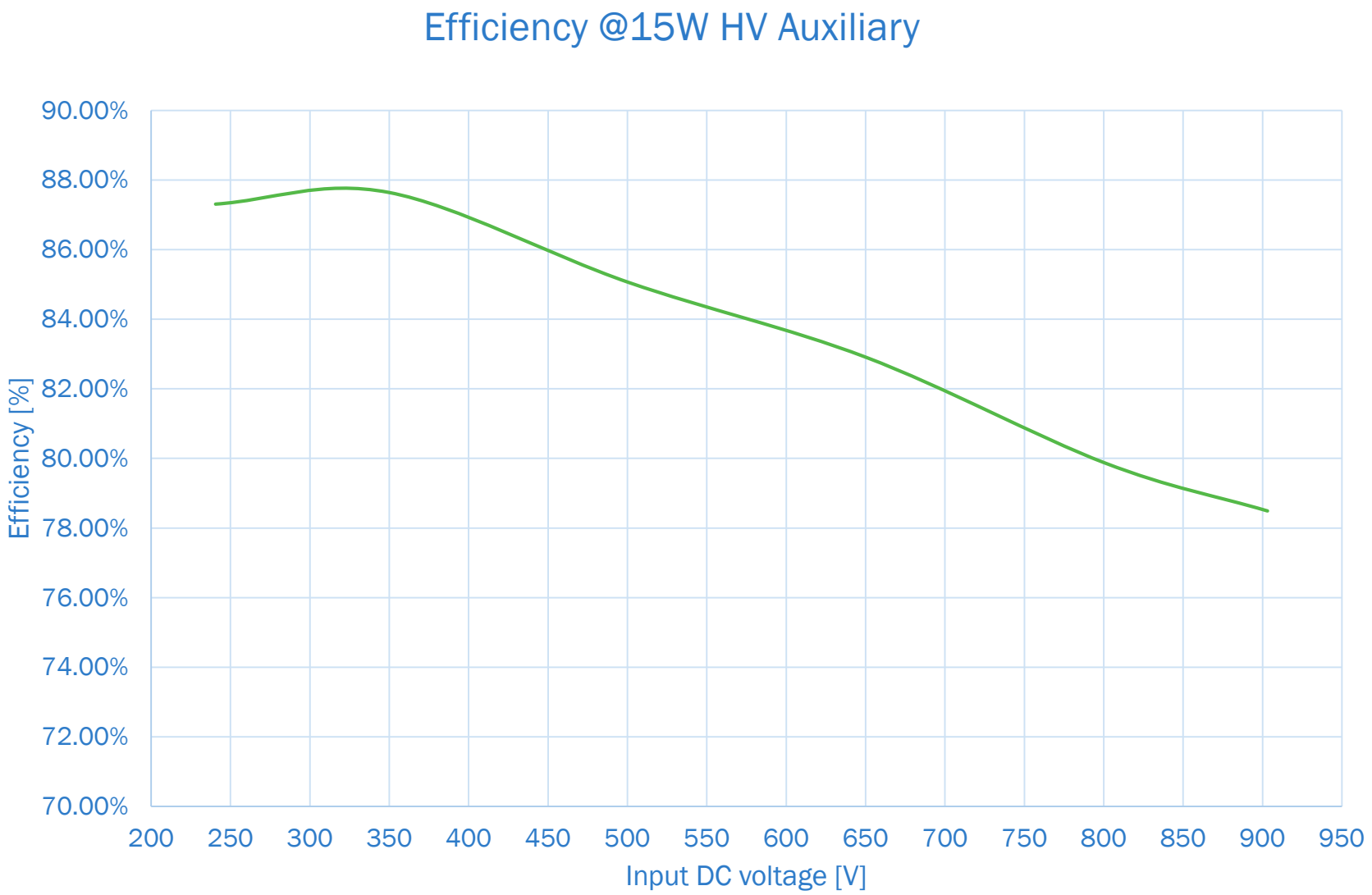
Specification

Specification	
Vin	250-900 Vdc
Vout	~15V
Power	15W
Isolation Level	4kV
Switching freq.	50kHz(max load)-200kHz
Key Portfolio	Automotive NCV1362, NVH4L0160N120SC1
Regulations	IEC 62368-1, pollution degree1

Block Diagram



Efficiency Figures at input voltage range and full load conditions



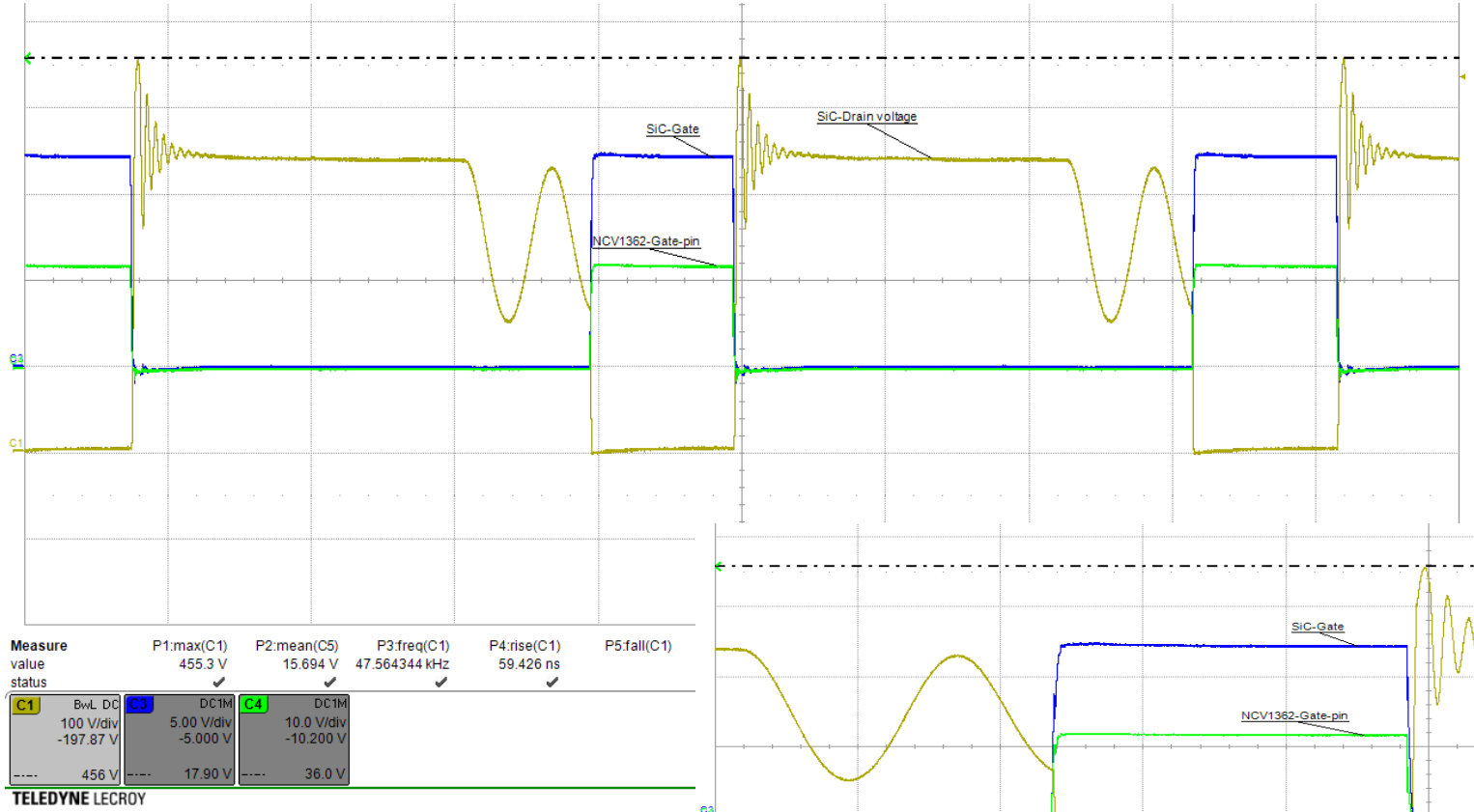
Measured conditions:

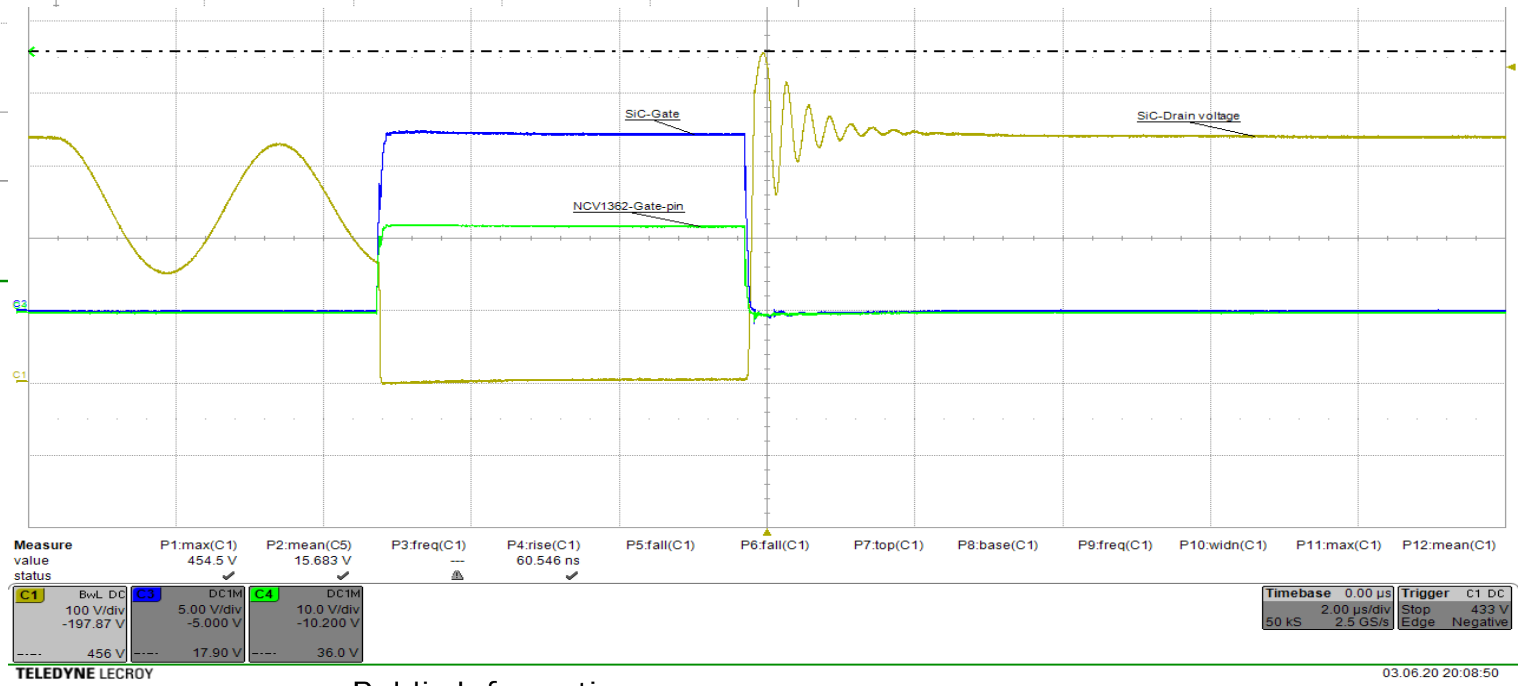
- Output power Pout ~ 15W
- Electronic load: Chroma 6147A used channel 3 as CRH (constant resistance high mode 15 Ohm -> 1.0A)

List of equipment:

- DC source: Magna-Power 0-1000V
- Power analyzer: Textronix PA3000
- Electronic load: Chroma

Waveforms at 240V DC full load





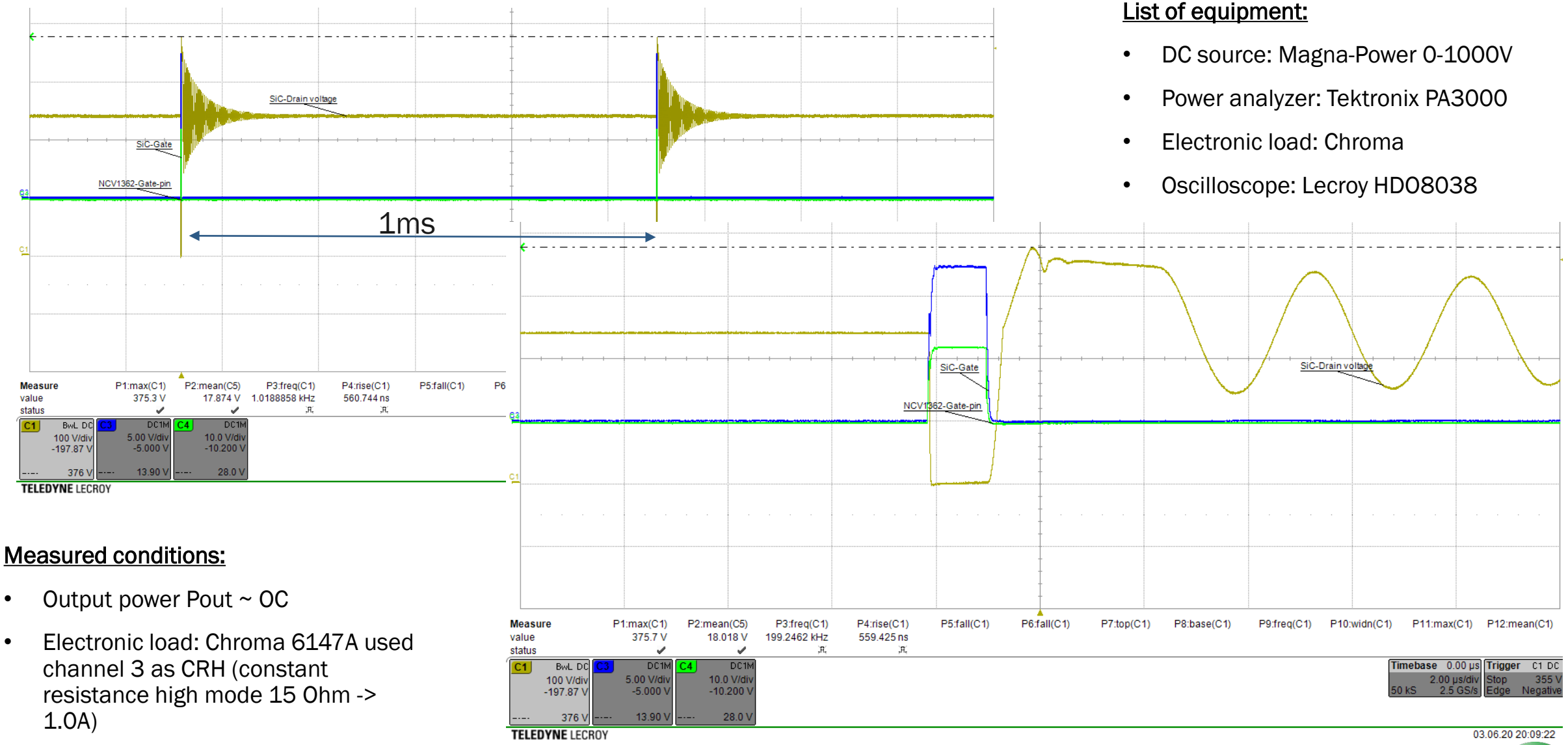
List of equipment:

- DC source: Magna-Power 0-1000V
- Power analyzer: Tektronix PA3000
- Electronic load: Chroma
- Oscilloscope: Lecroy HDO8038

Measured conditions:

- Output power Pout ~ 15W
- Electronic load: Chroma 6147A used channel 3 as CRH (constant resistance high mode 15 Ohm -> 1.0A)

Waveforms at 240V DC open circuit



List of equipment:

- DC source: Magna-Power 0-1000V
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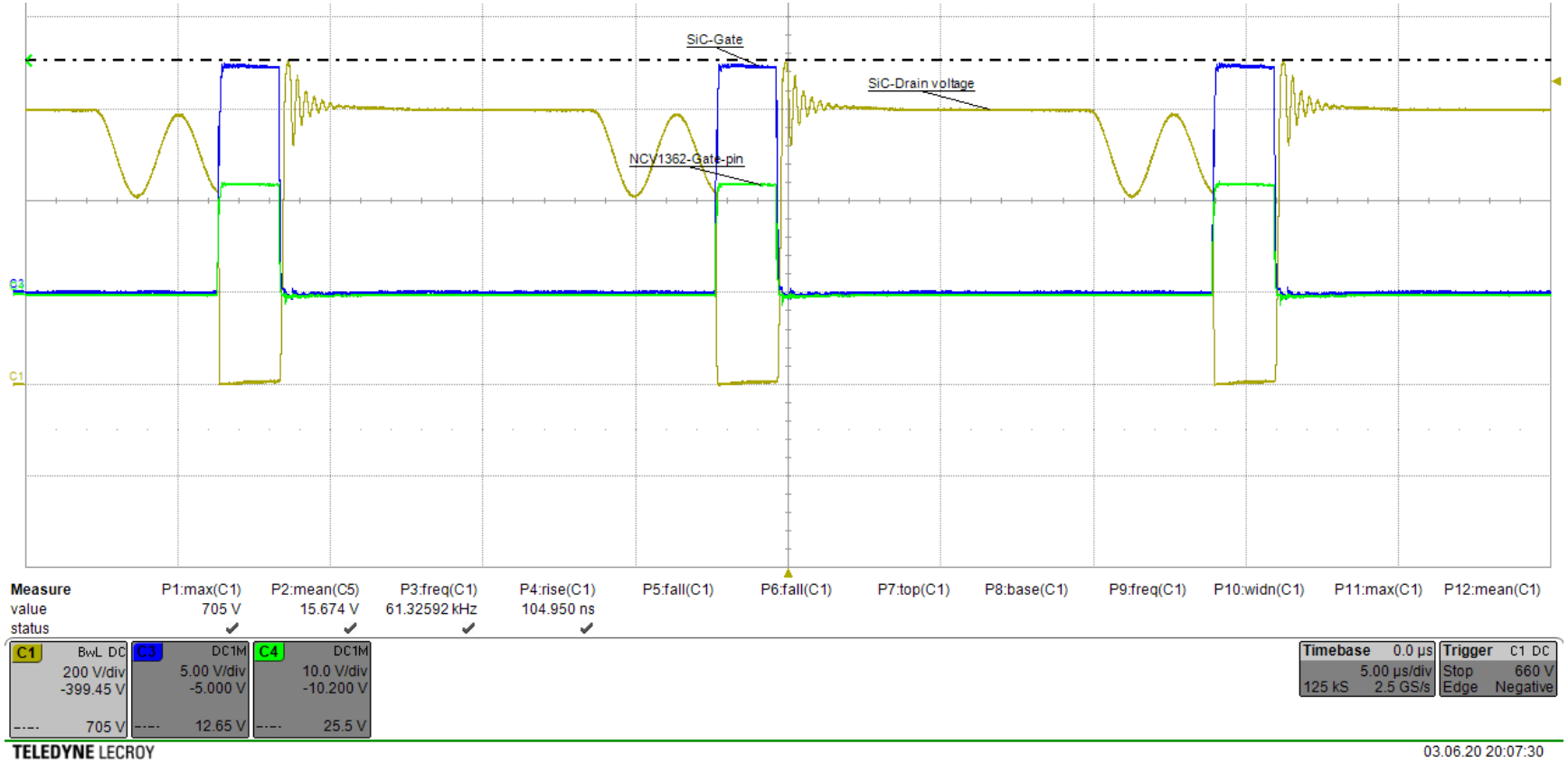
- Electronic load: Chroma
- Oscilloscope: Lecroy HD08038

Measured conditions:

- Output power Pout ~ OC
- Electronic load: Chroma 6147A used channel 3 as CRH (constant resistance high mode 15 Ohm -> 1.0A)

Waveforms at 500V DC full load



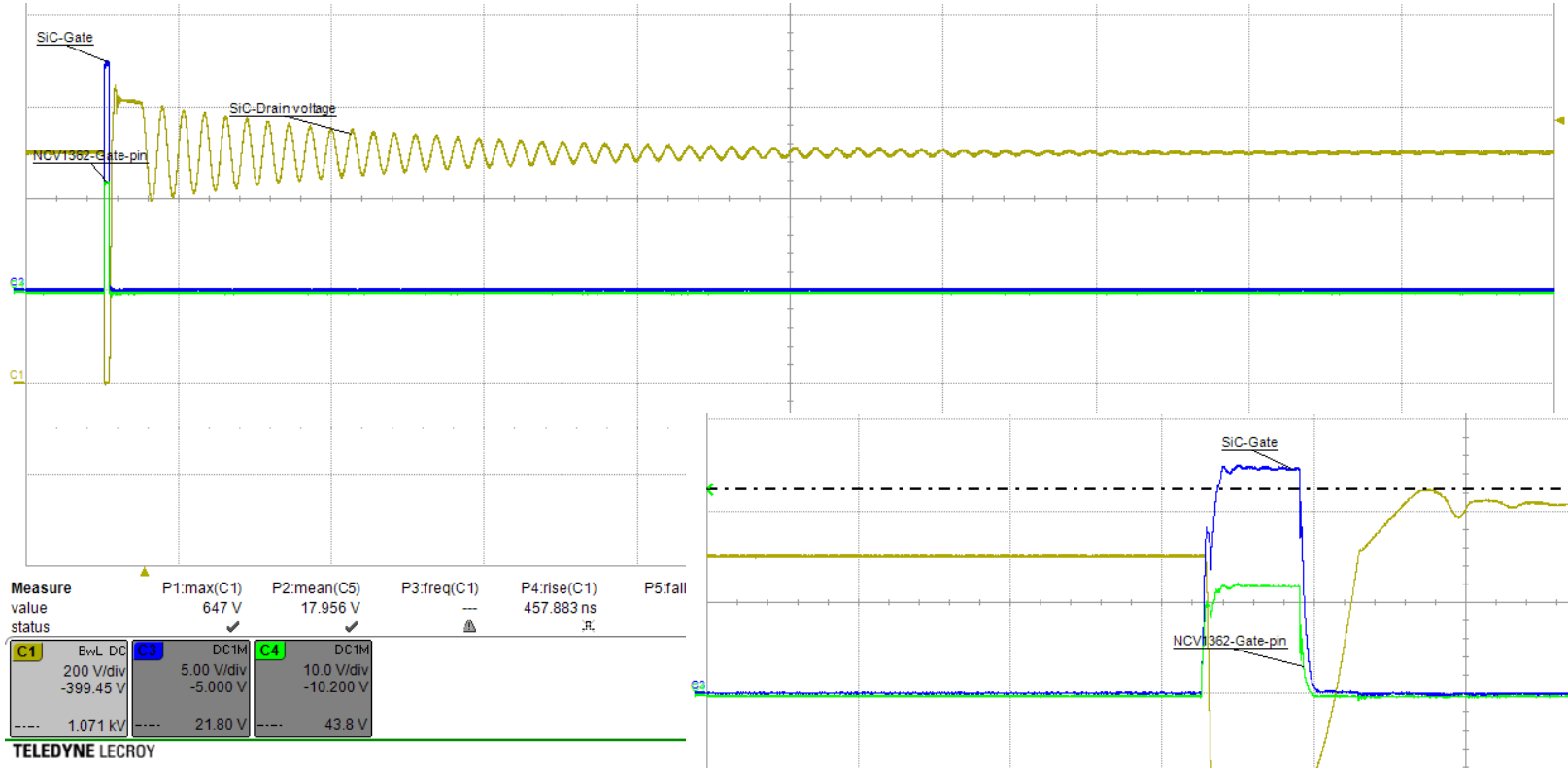
List of equipment:

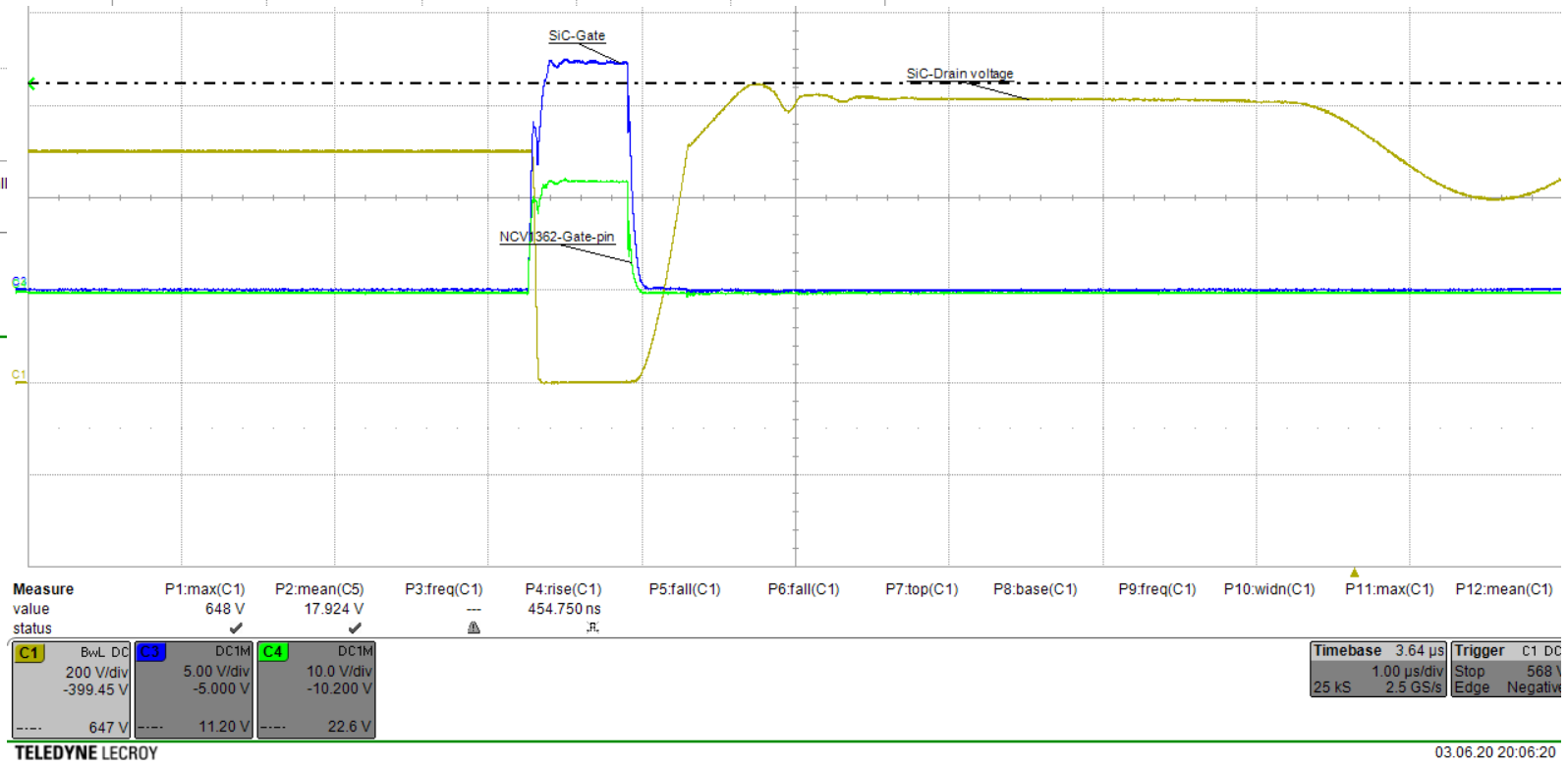
- DC source: Magna-Power 0-1000V
- Power analyzer: Tektronix PA3000
- Electronic load: Chroma
- Oscilloscope: Lecroy HDO8038

Measured conditions:

- Output power Pout ~ 15W
- Electronic load: Chroma 6147A used channel 3 as CRH (constant resistance high mode 15 Ohm -> 1.0A)

Waveforms at 500V DC open circuit





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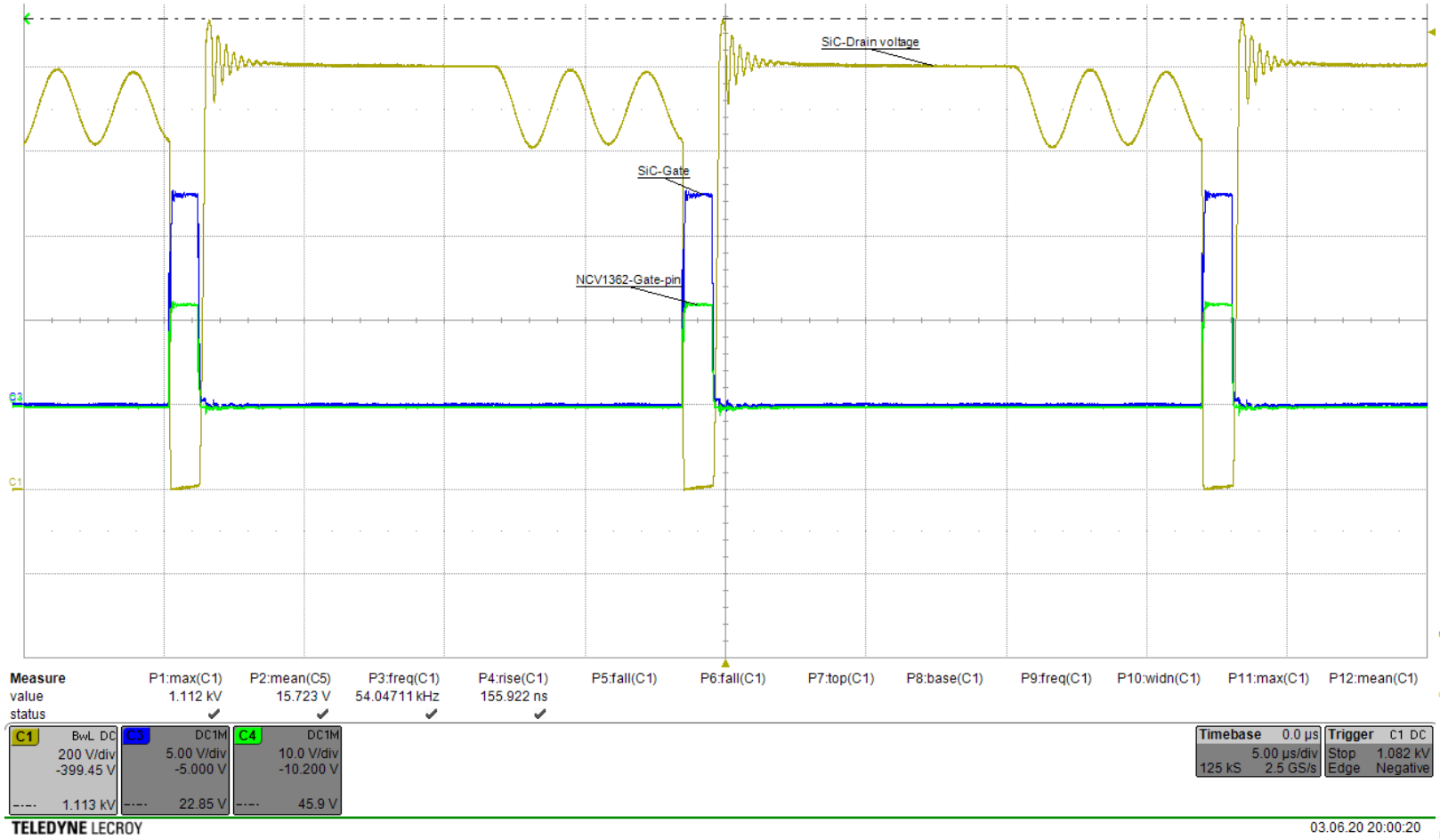
Measured conditions:

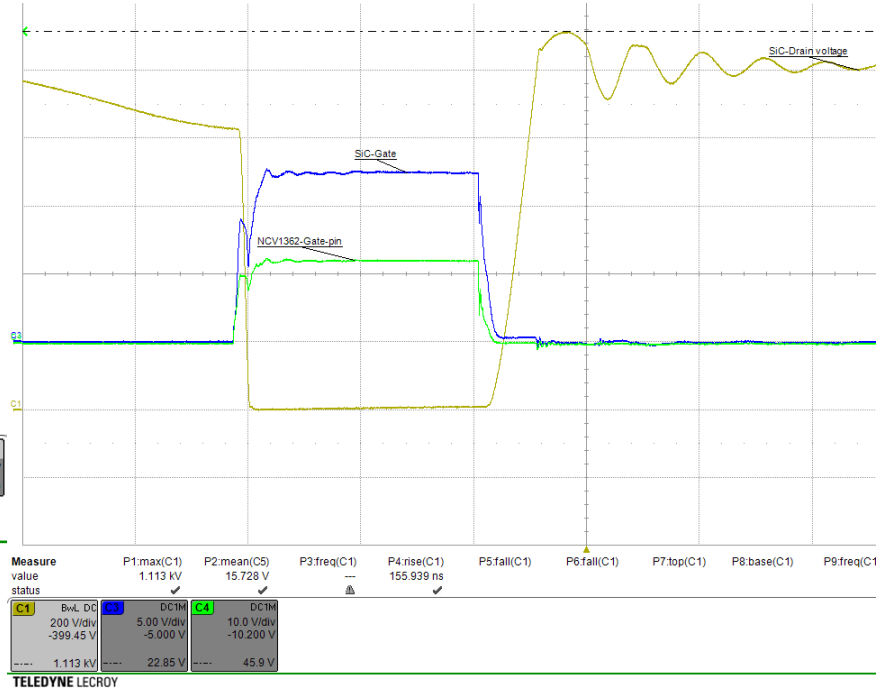
- Output power Pout ~ 15W
- Electronic load: Chroma 6147A used channel 3 as CRH (constant resistance high mode 15 Ohm -> 1.0A)

Waveforms at 900V DC full load



List of equipment:

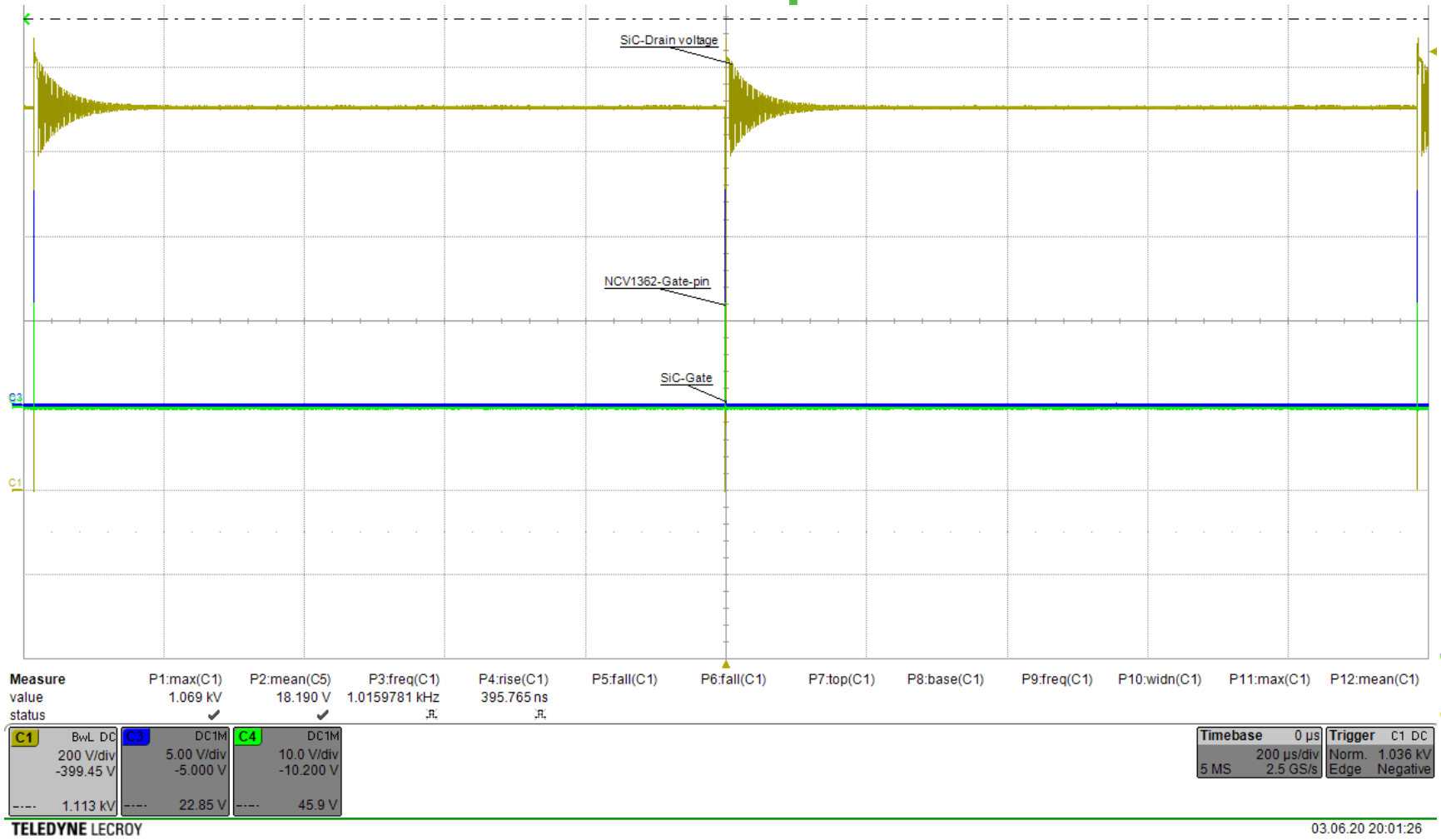
- DC source: Magna-Power 0-1000V
- Power analyzer: Tektronix PA3000
- Electronic load: Chroma
- Oscilloscope: Lecroy HDO8038



Measured conditions:

- Output power Pout ~ 15W
- Electronic load: Chroma 6147A used channel 3 as CRH (constant resistance high mode 15 Ohm -> 1.0A)

Waveforms at 900V DC open circuit



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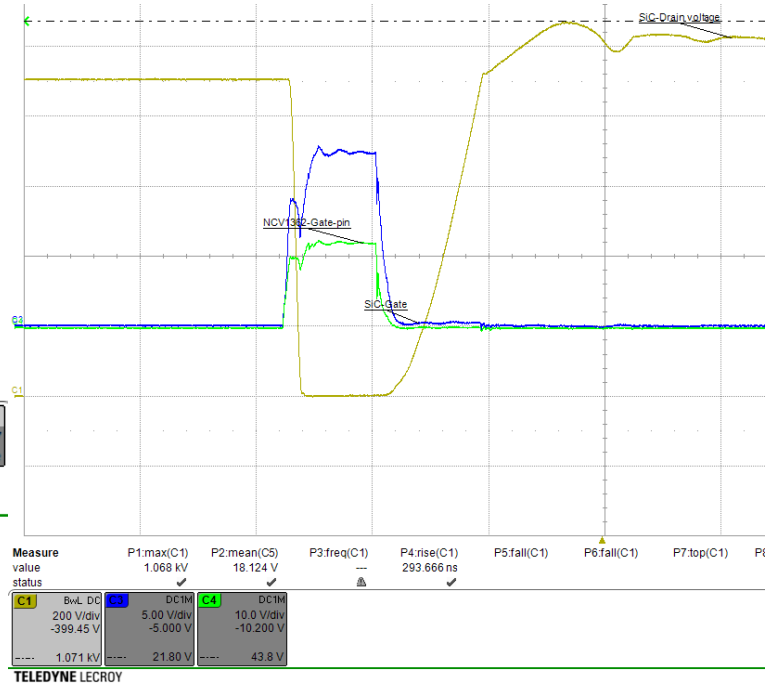
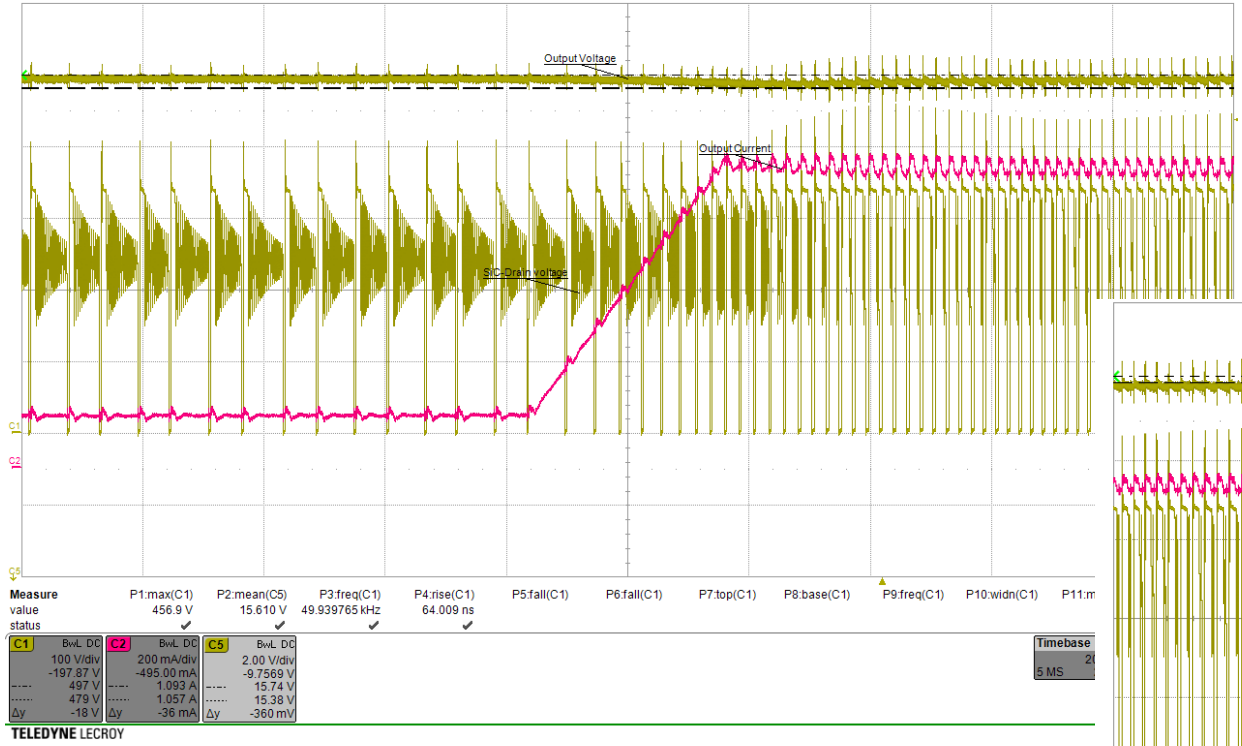
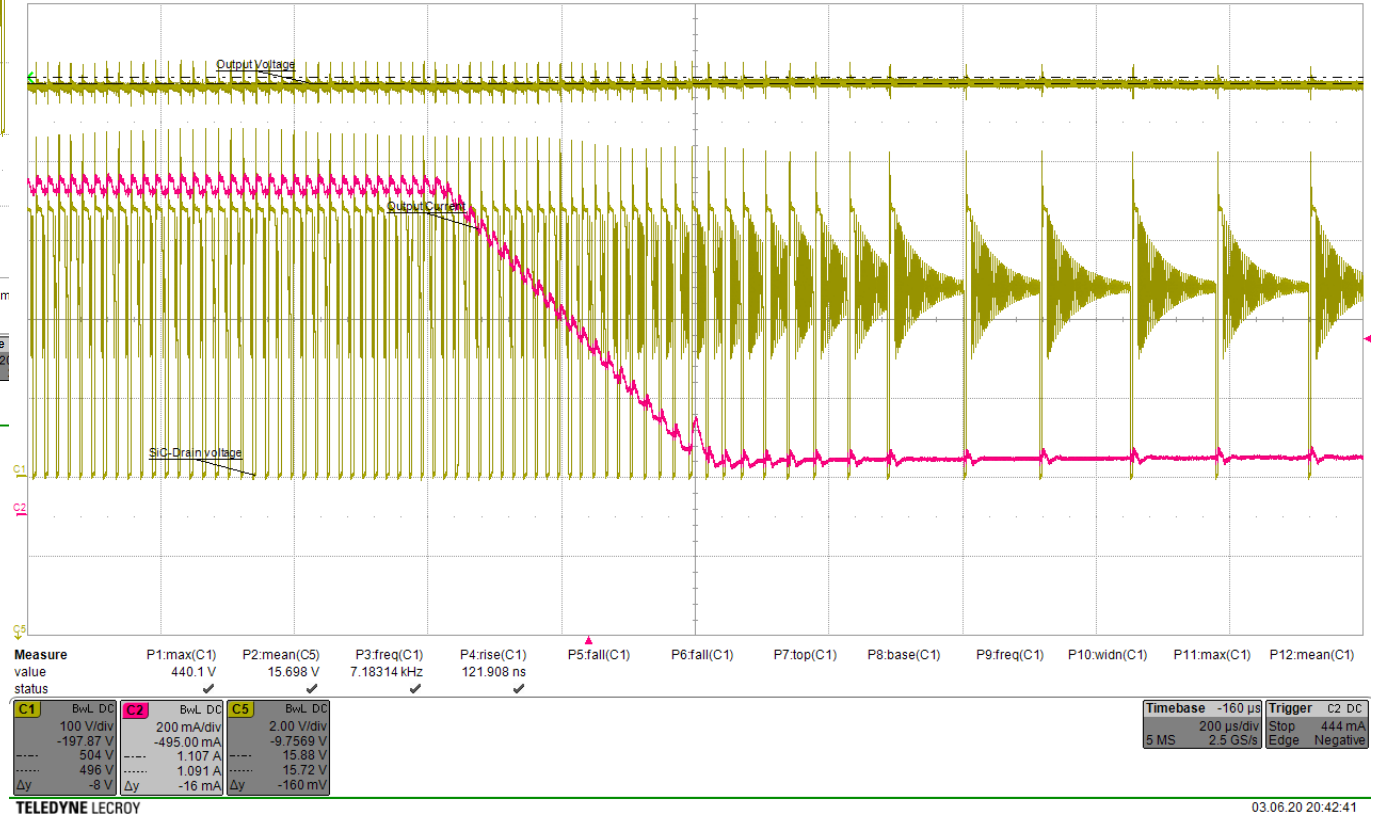


Measured conditions:

- Output power Pout ~ 15W
- Electronic load: Chroma 6147A used channel 3 as CRH (constant resistance high mode 15 Ohm -> 1.0A)

Load transients at 240V – 10% to 90%, 90% to 10%





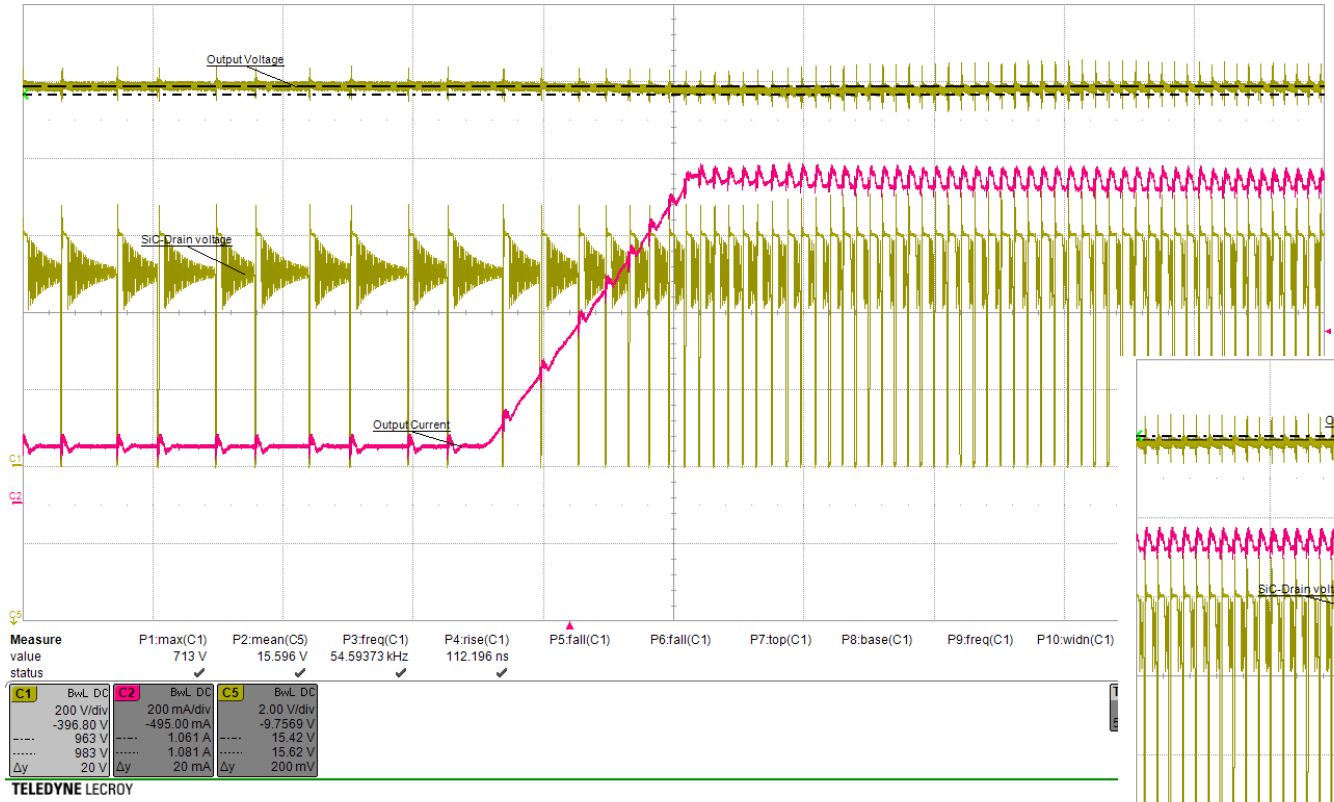
List of equipment:

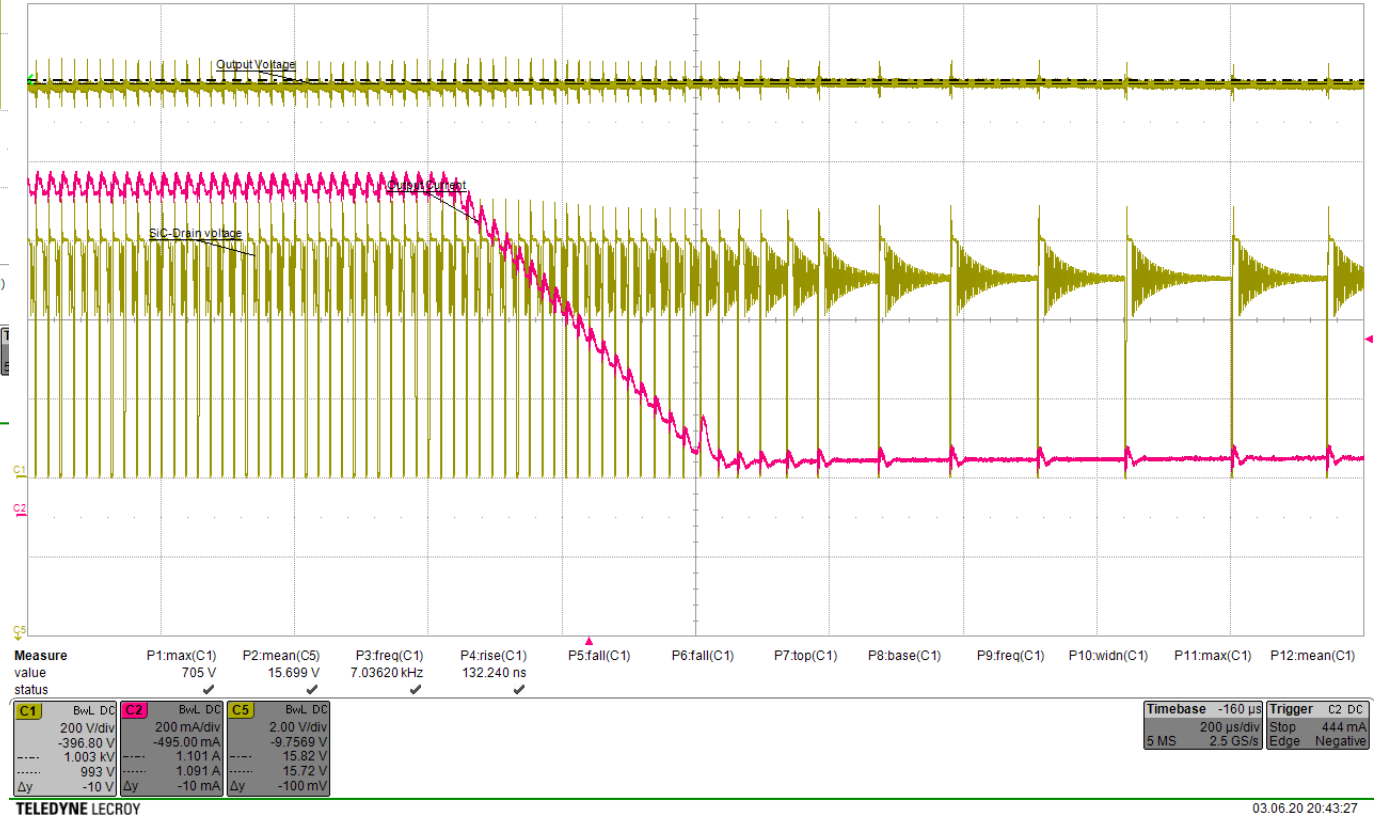
- DC source: Magna-Power 0-1000V
- Power analyzer: Tektronix PA3000
- Electronic load: Chroma
- Oscilloscope: Lecroy HDO8038

Measured conditions:

- Output power Pout ~ 15W
- Electronic load: Chroma 6147A used channel 3 as CCDL (constant current dynamic mode 0.15A -> 0.85A)

Load transients at 500V – 10% to 90%, 90% to 10%





List of equipment:

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- Power analyzer: Tektronix PA3000
- Electronic load: Chroma
- Oscilloscope: Lecroy HDO8038

Measured conditions:

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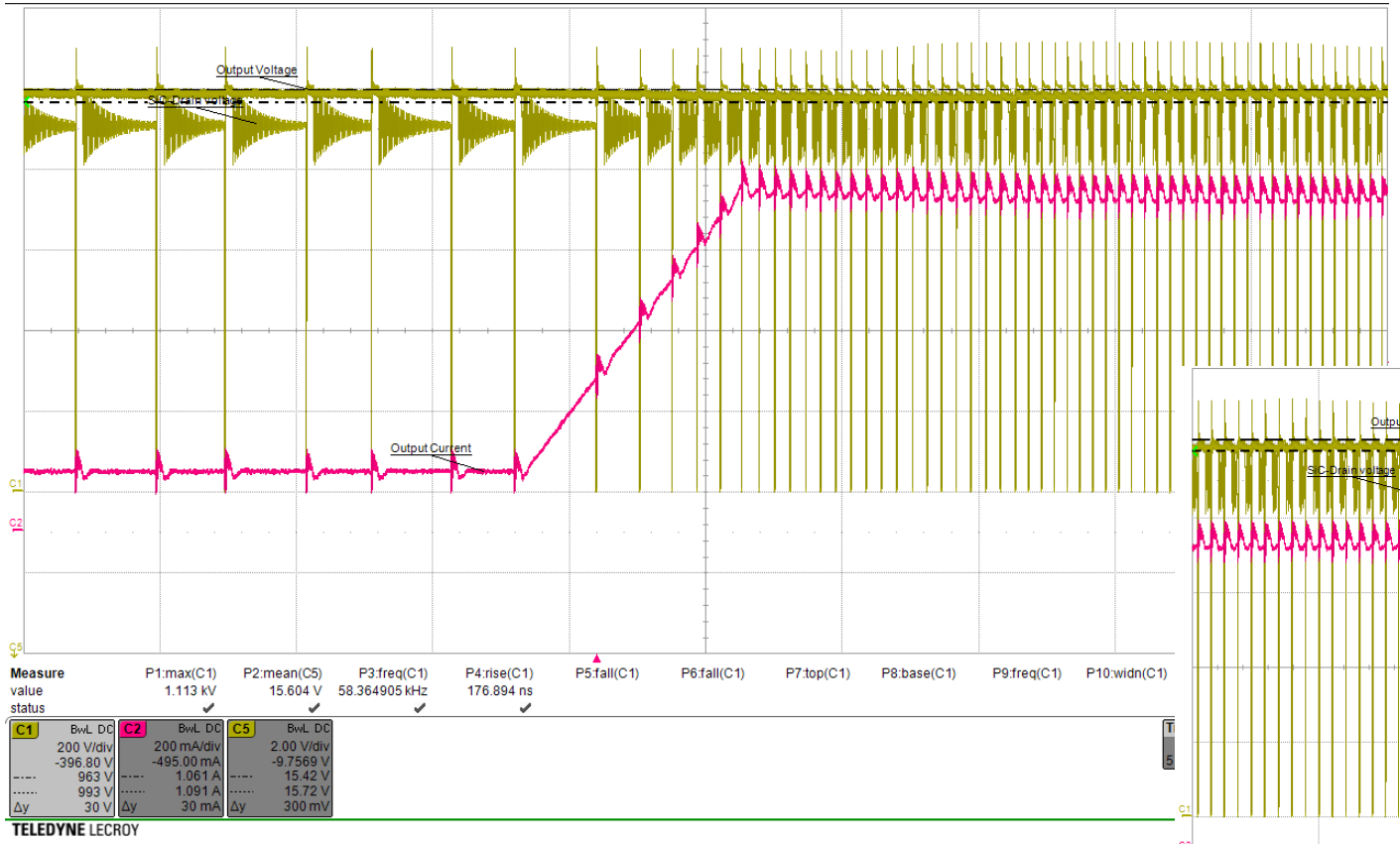
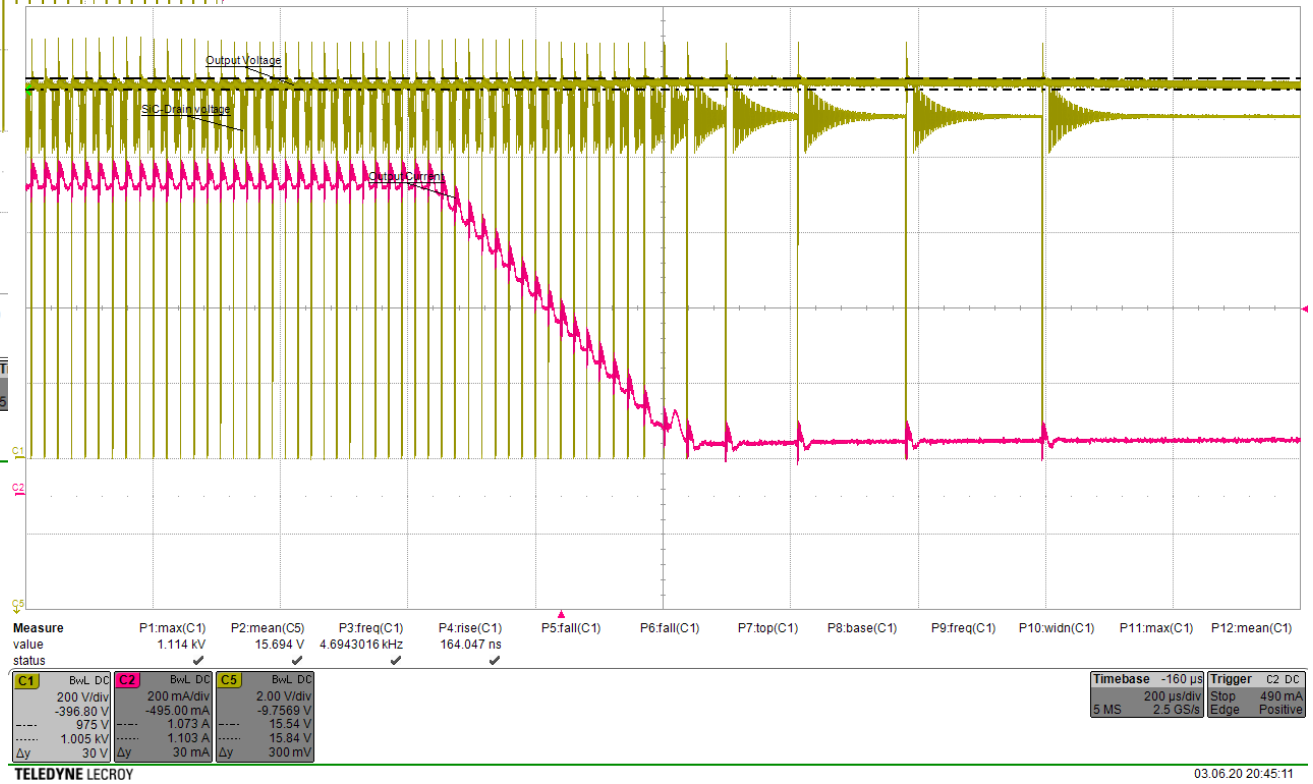
- Electronic load: Chroma 6147A used channel 3 as CCDL (constant current dynamic mode 0.15A -> 0.85A)

Load transients at 900V – 10% to 90%, 90% to 10%





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