

Switching loss measurement for Wide-bandgap semiconductors

- In switching cell measurement (classic double pulse) for GaN and SiC
- Commutation loop current measurement
 - Low additional inductance of 300 pH
 - Bandwidth of 500 MHz
- High resolution control signal
 - Up to 4 gate signals
 - Configuration script
 - Pulse and dead time resolution of 250 ps
- Coil for measurement purposes
 - Calibrated up to 100 MHz
 - Low stray field due to toroid shape
 - Low HF losses due to litz wire
 - Pulse resistant up to 150 A because no magnetic material is used
- Parameters of the measurement seen in the picture below
 - $U_{DC} = 600\text{ V}$
 - $I_L = 20\text{ A}$
 - $L = 7\text{ }\mu\text{H}$
 - $dU/dt = 70\text{ V/ns} \rightarrow 600\text{ V in } 8.5\text{ ns} !!!$
 - $dI/dt = 18\text{ A/ns}$

