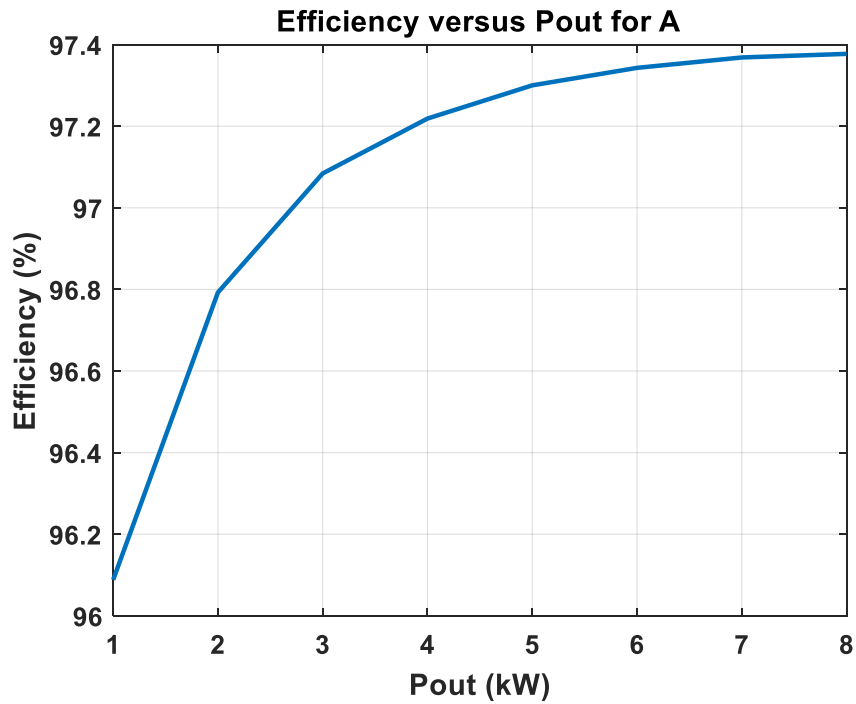
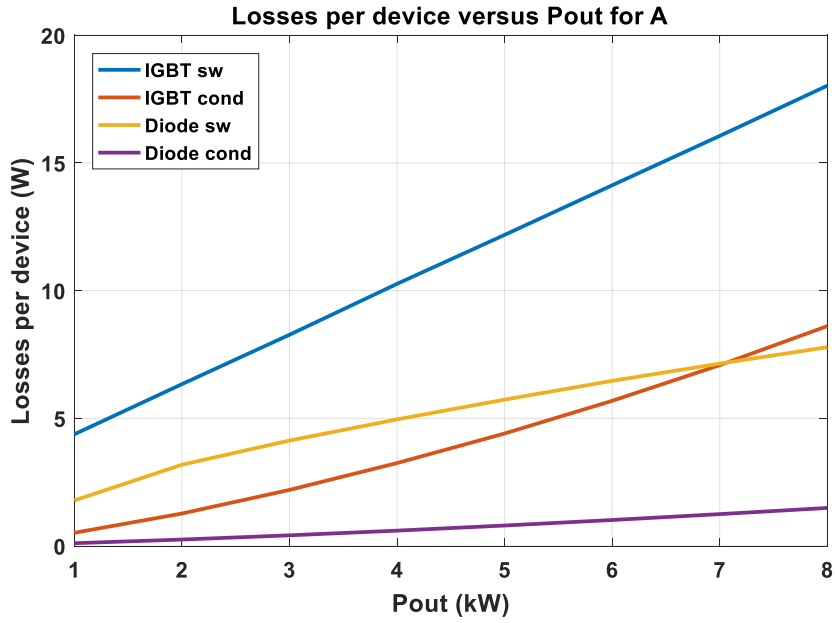


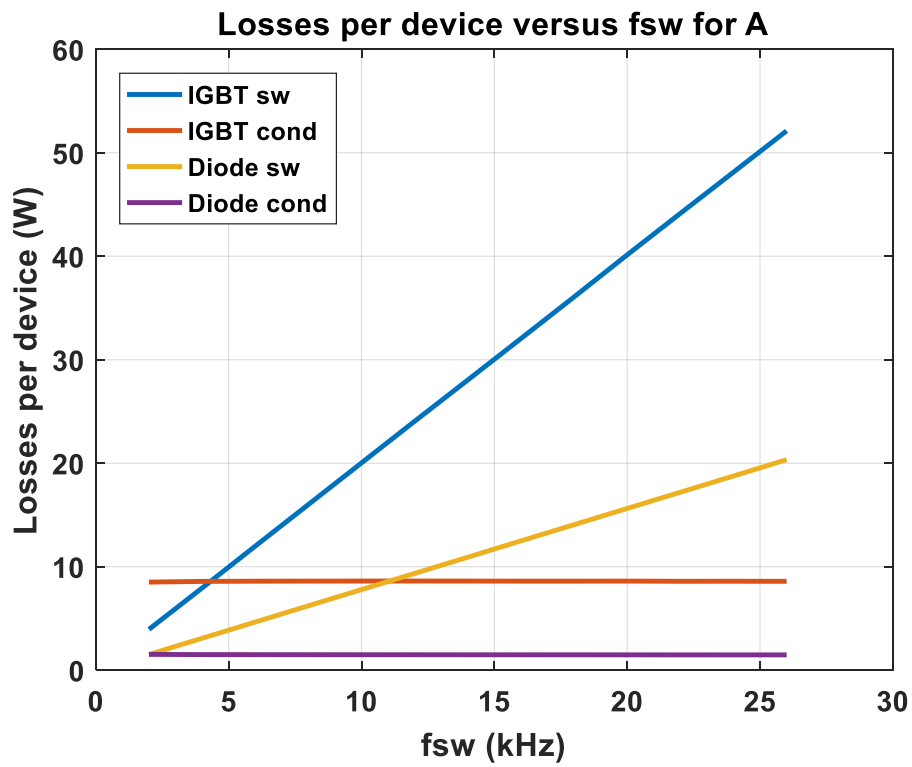
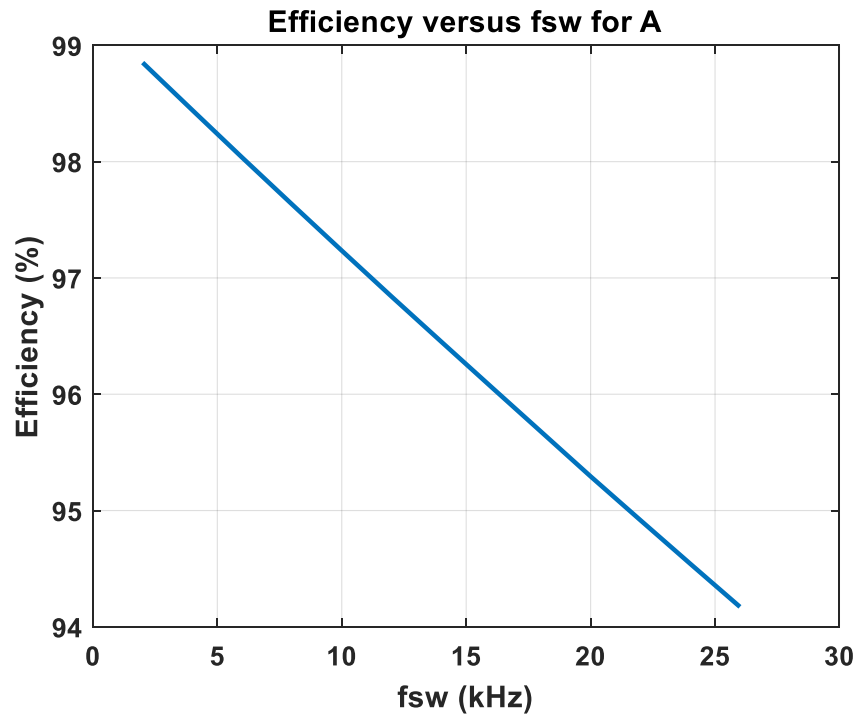
PEMC makalesinde son durum

- A için IGBT'nin I_{CE} V_{CE} grafikleri, switching lossları revize edildi
- B ve D için GaN conduction, switching ve diode conduction, switching revize edildi
- C ve E için GaN conduction, switching ve diode conduction, switching revize edildi

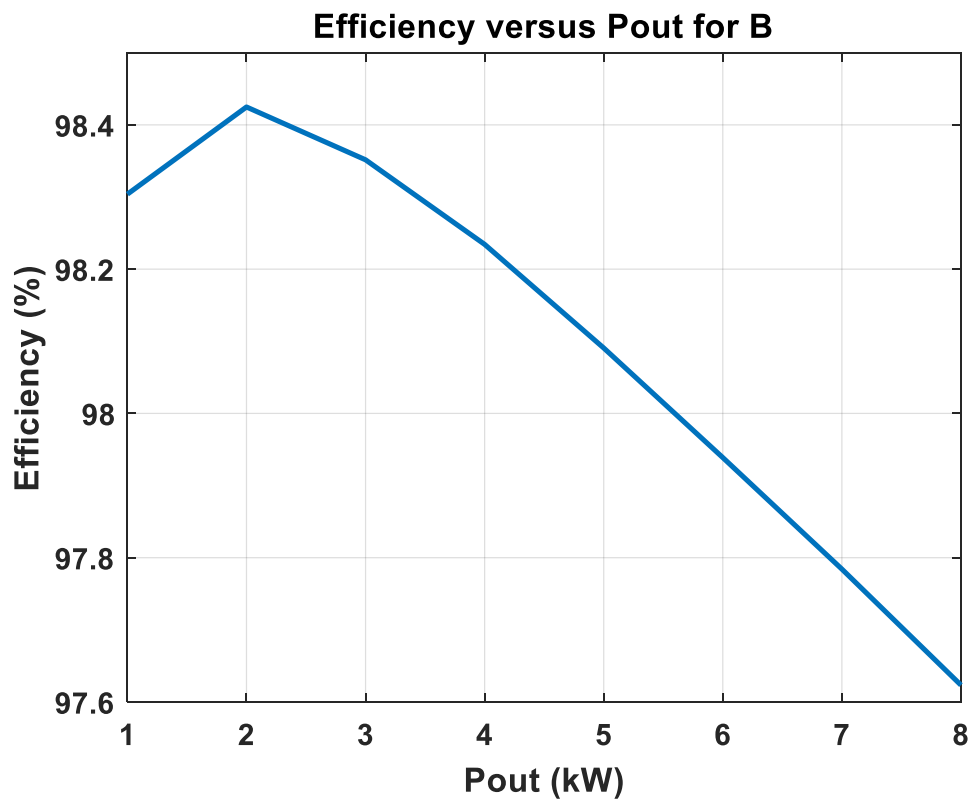
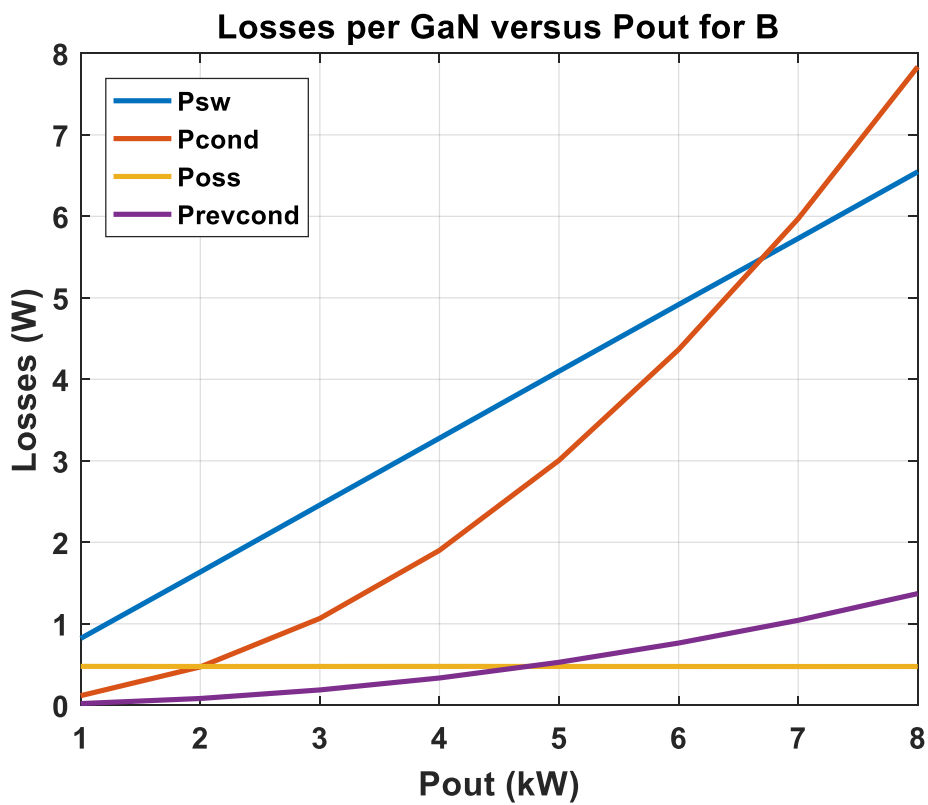
Simülasyon sonuçları

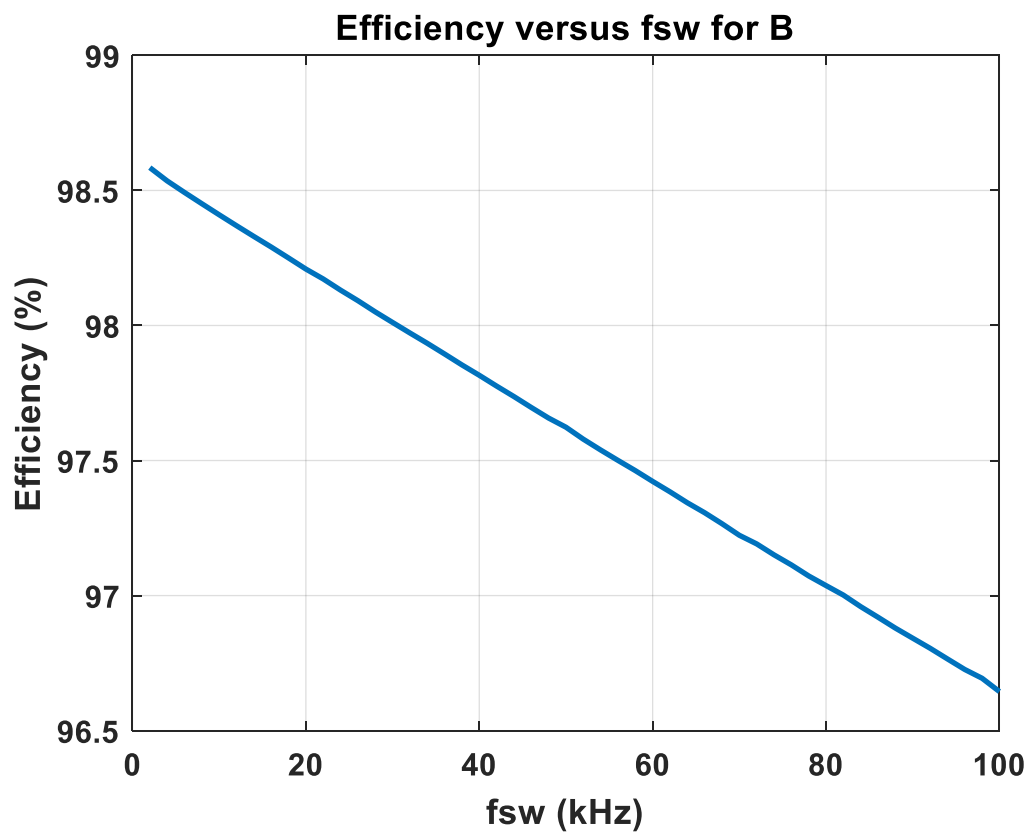
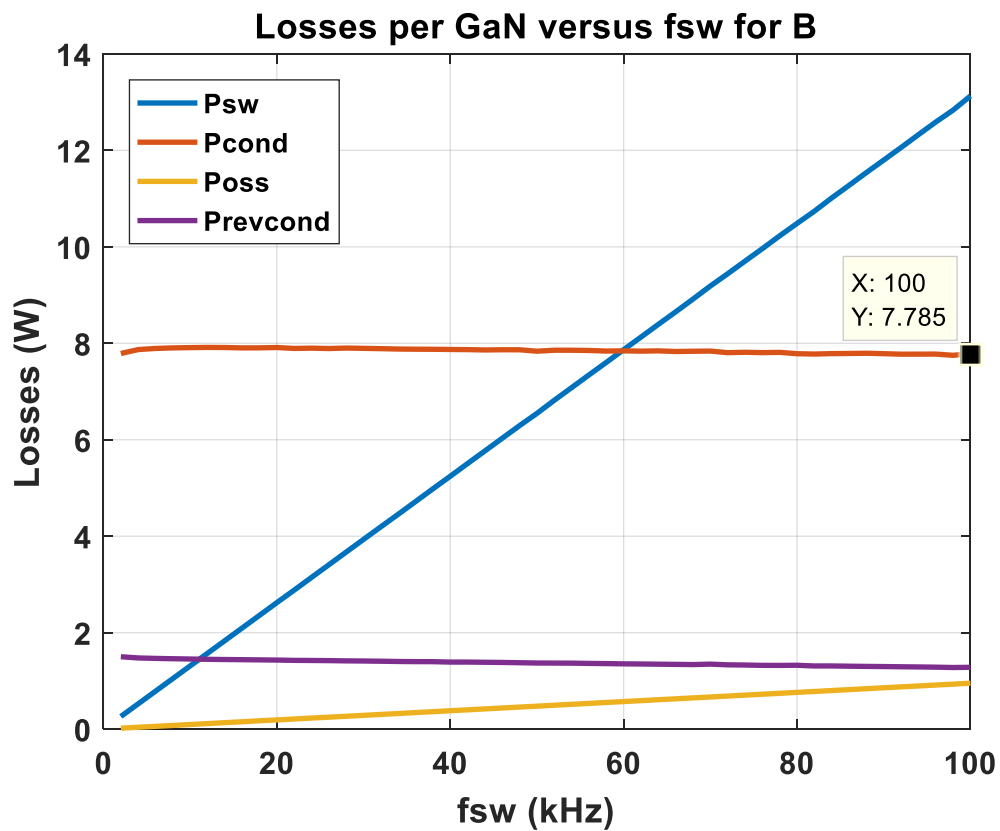
Topology A – 2 level inverter with IGBT



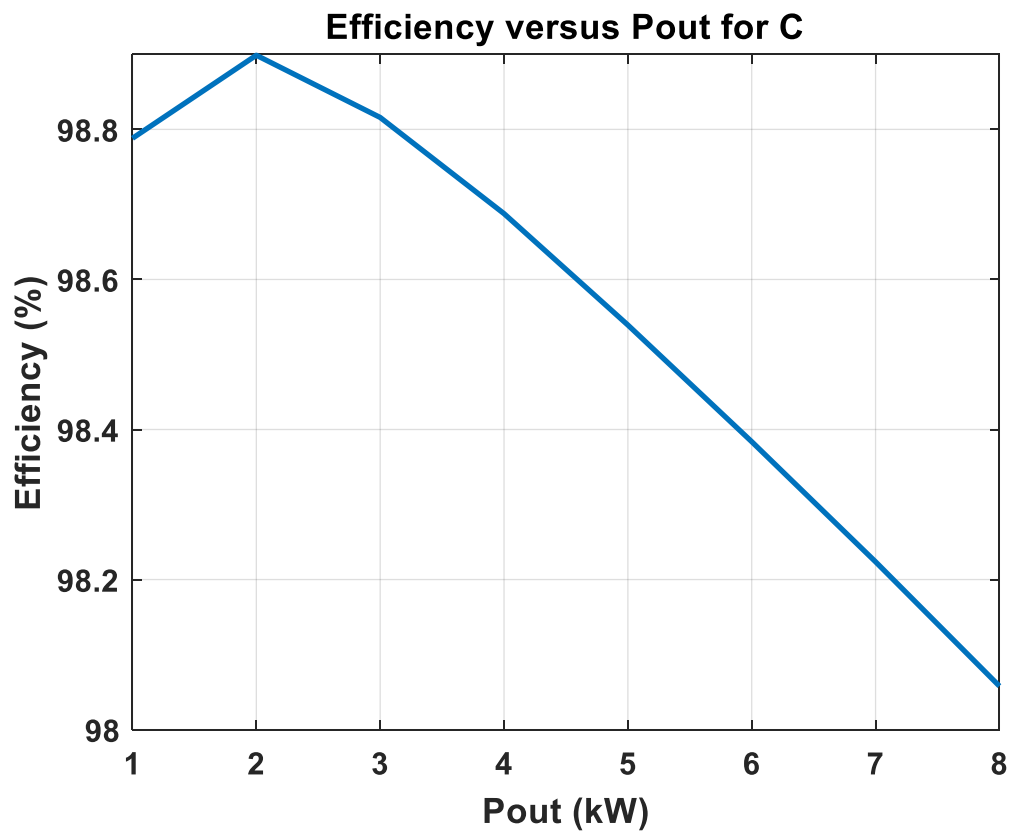
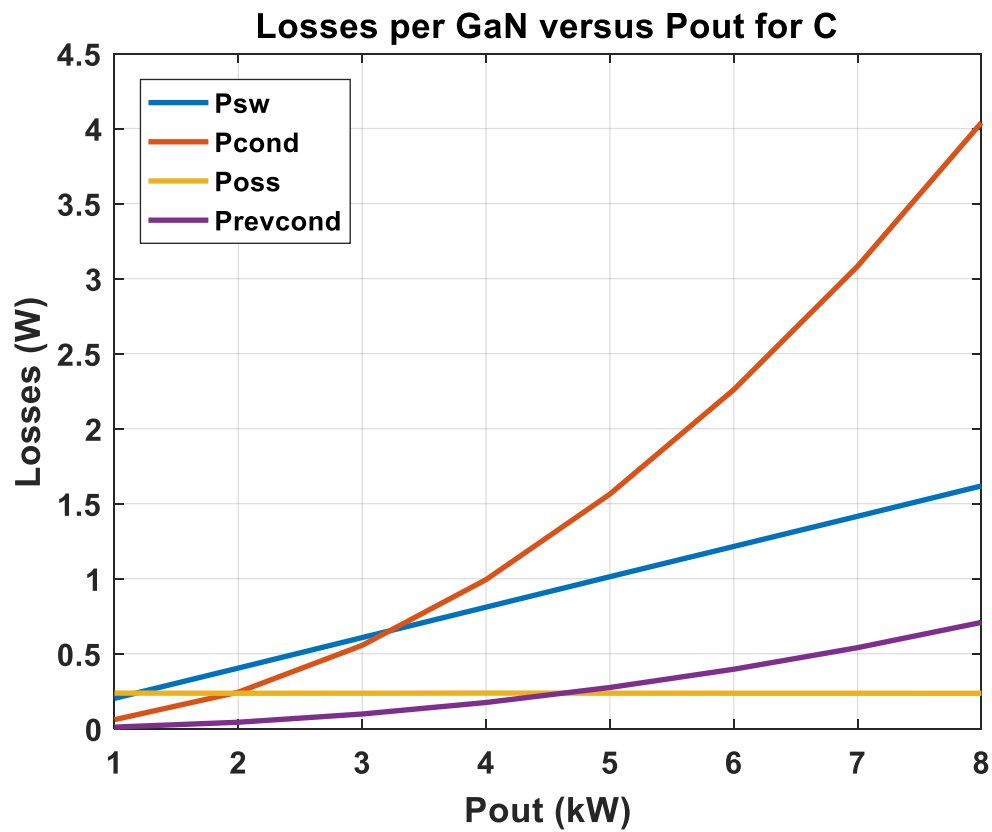


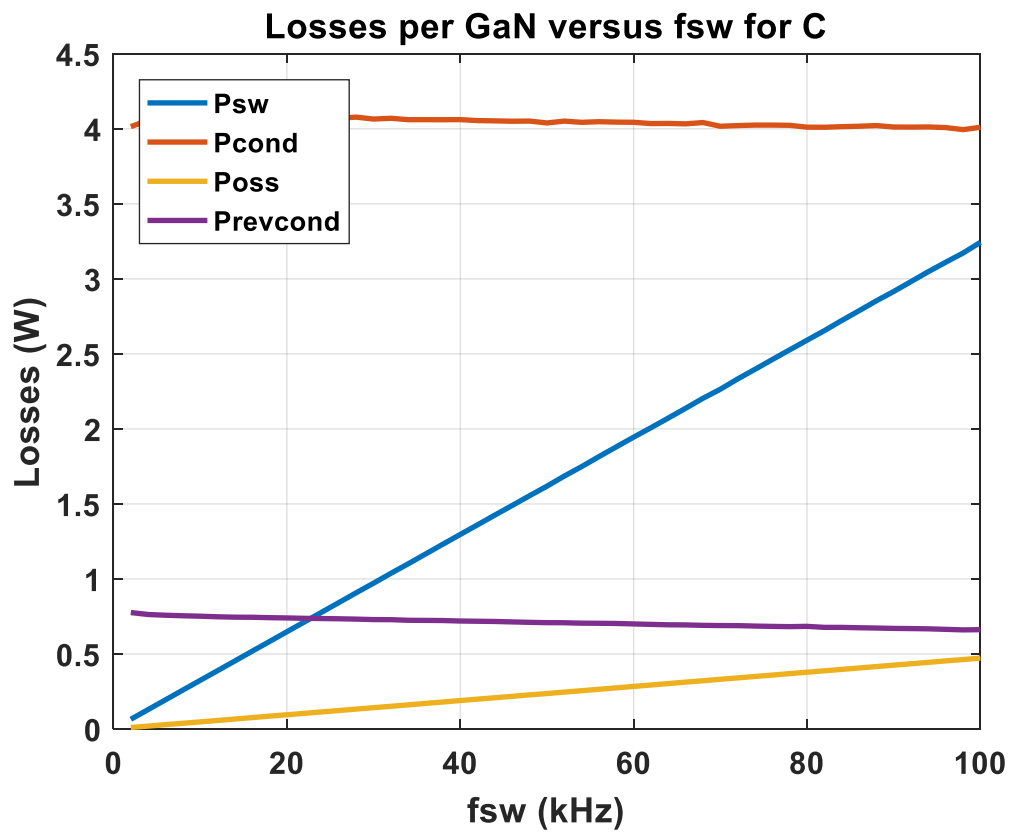
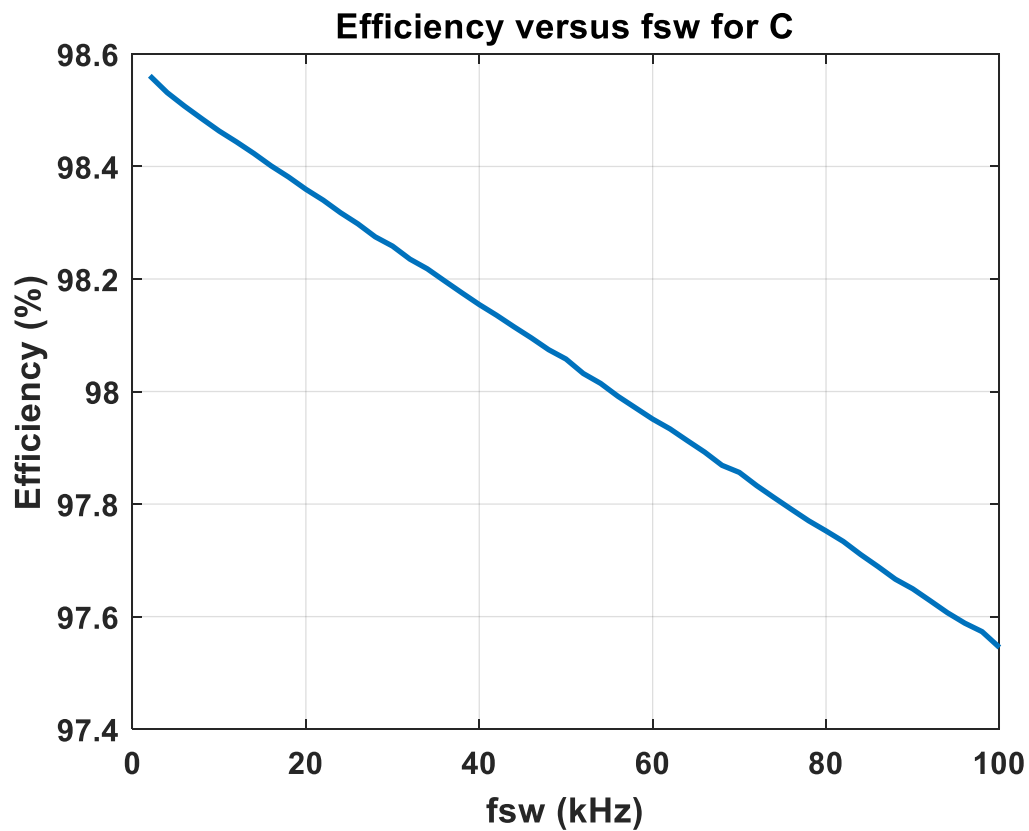
Topology B – 2 level 2 series inverters with GaN



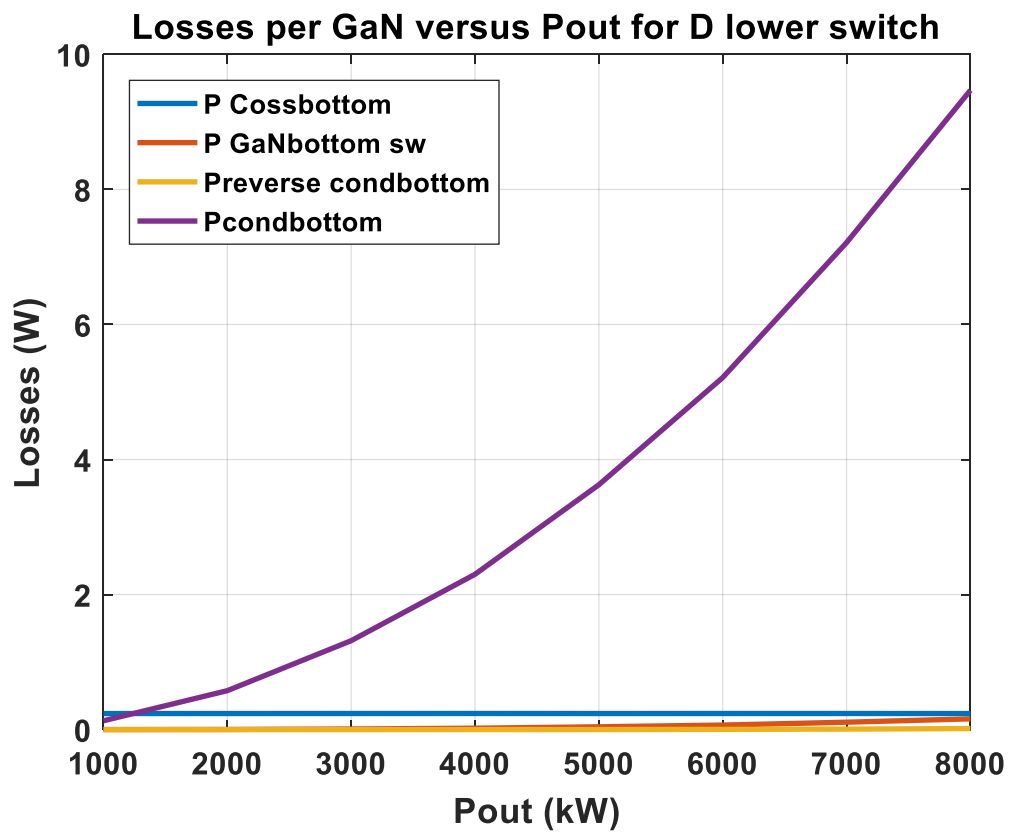
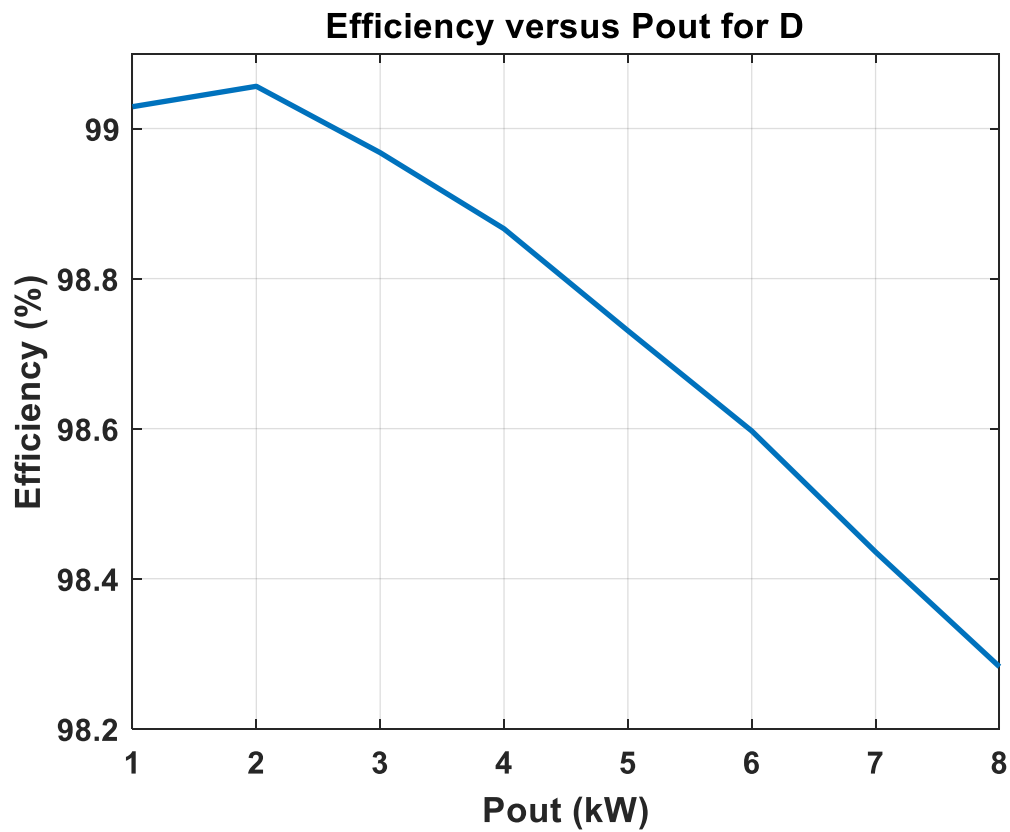


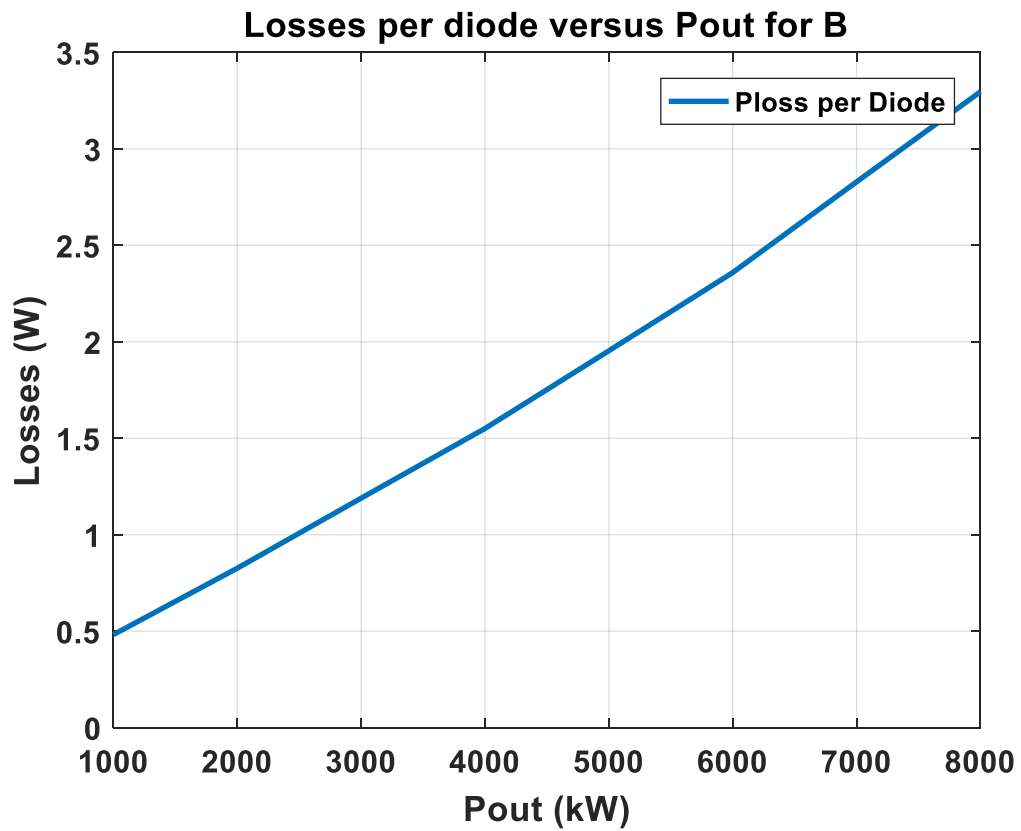
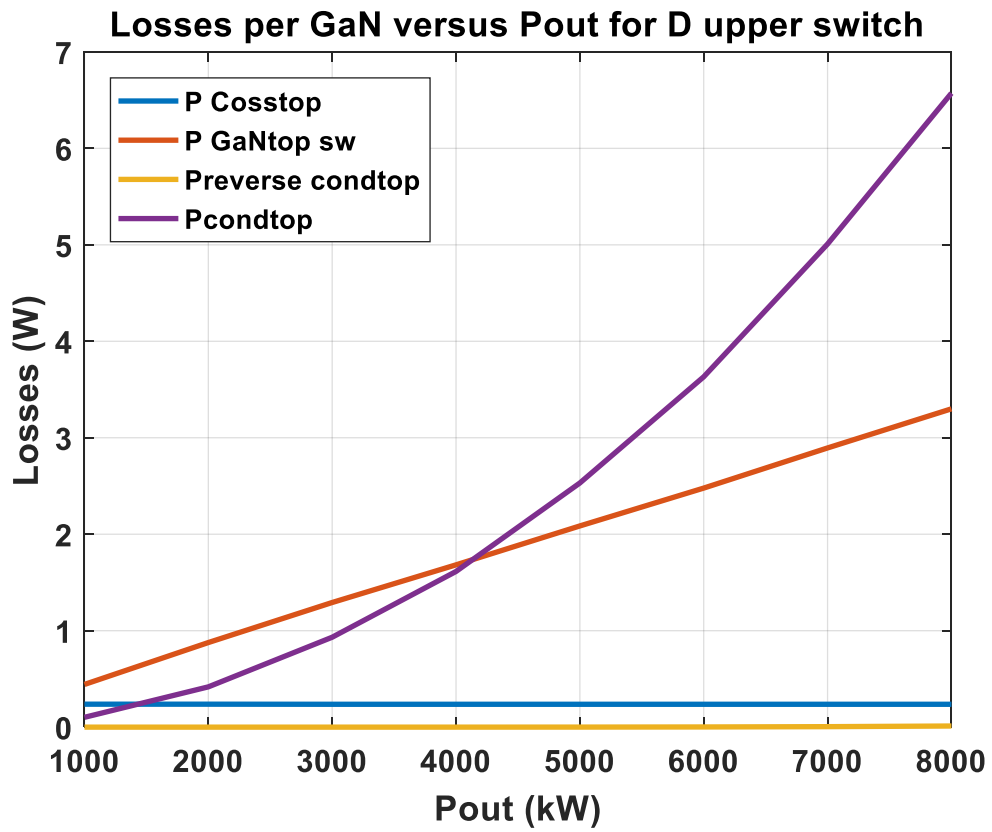
Topology C – 2 level 2 series 2 parallel inverters with GaN

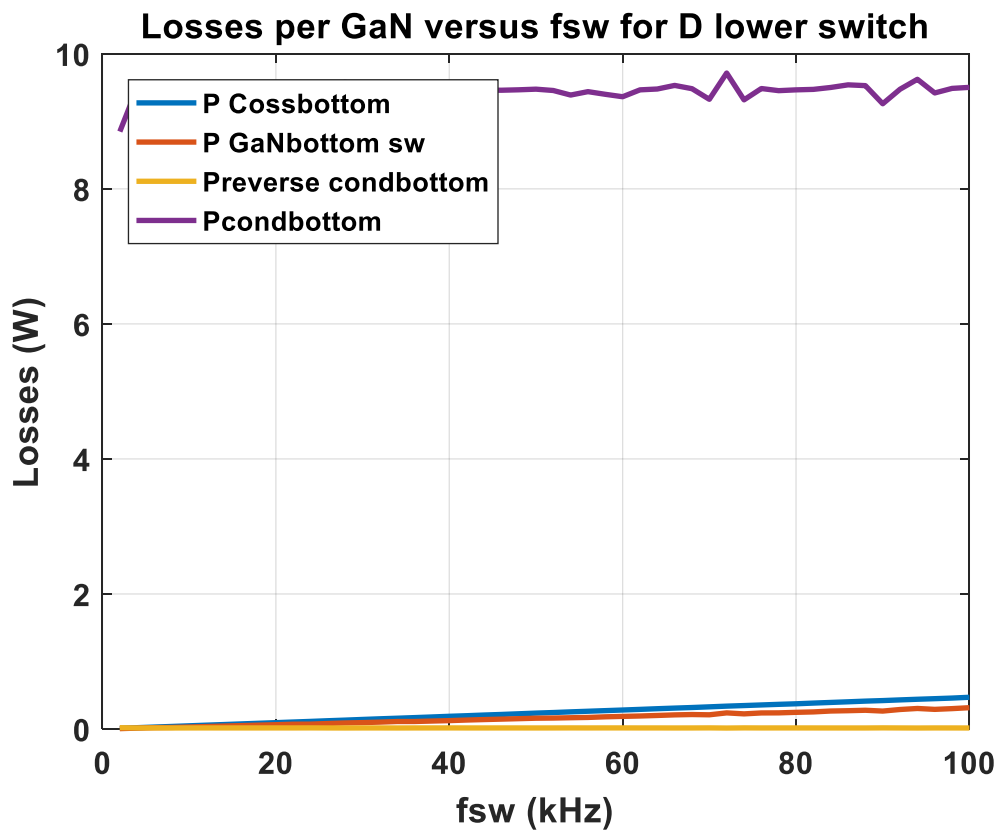
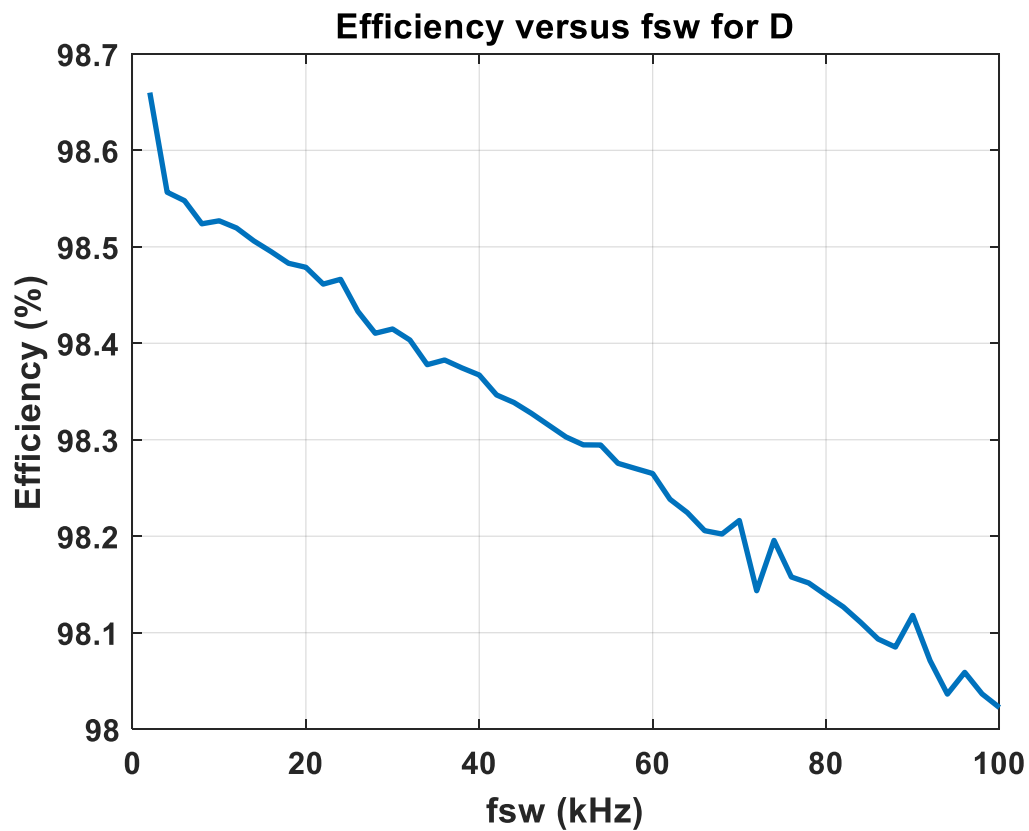


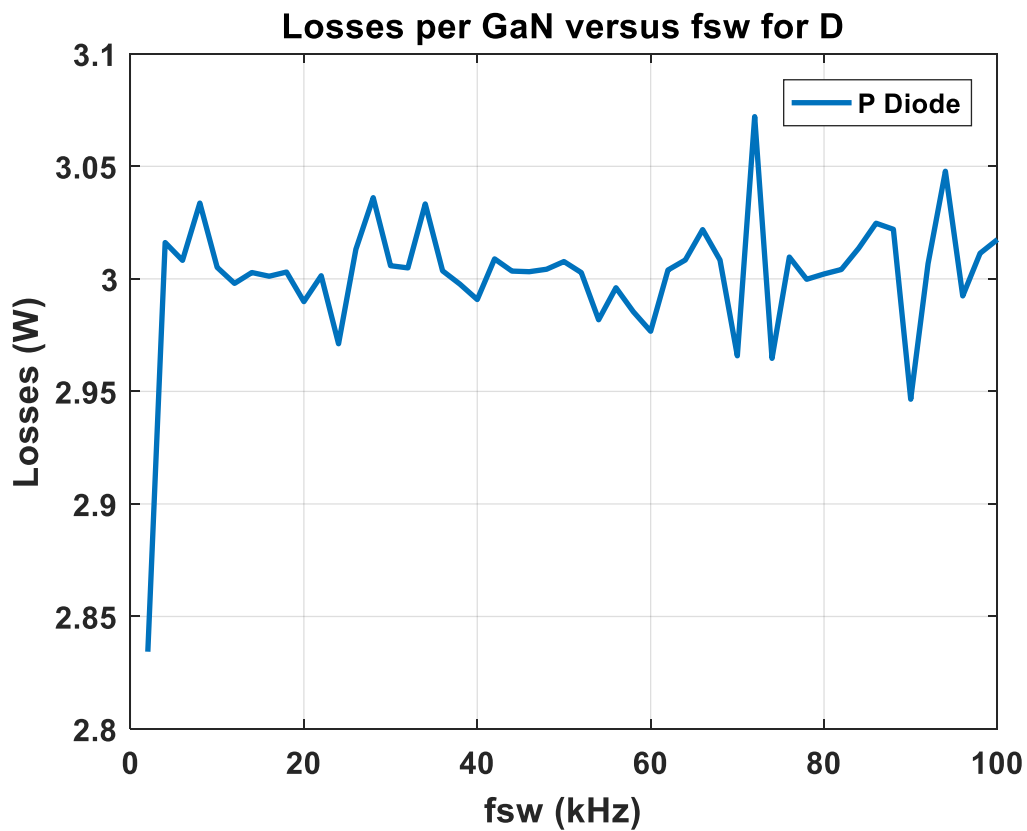
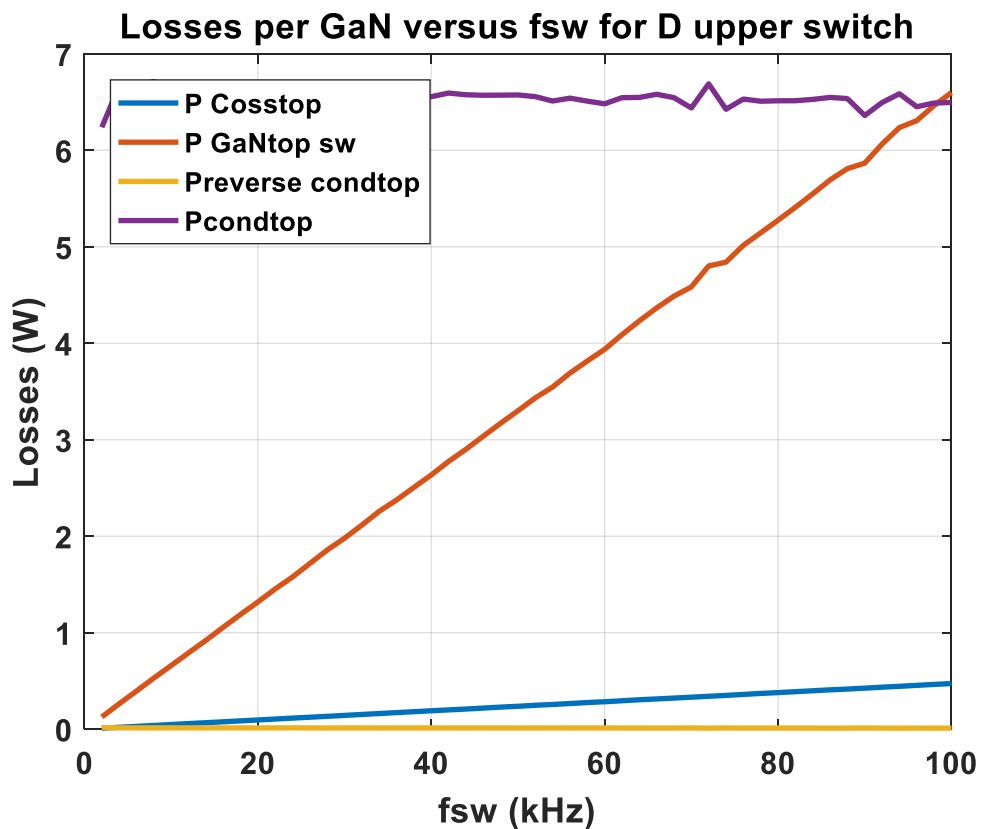


Topology D – 3 level inverter with GaN

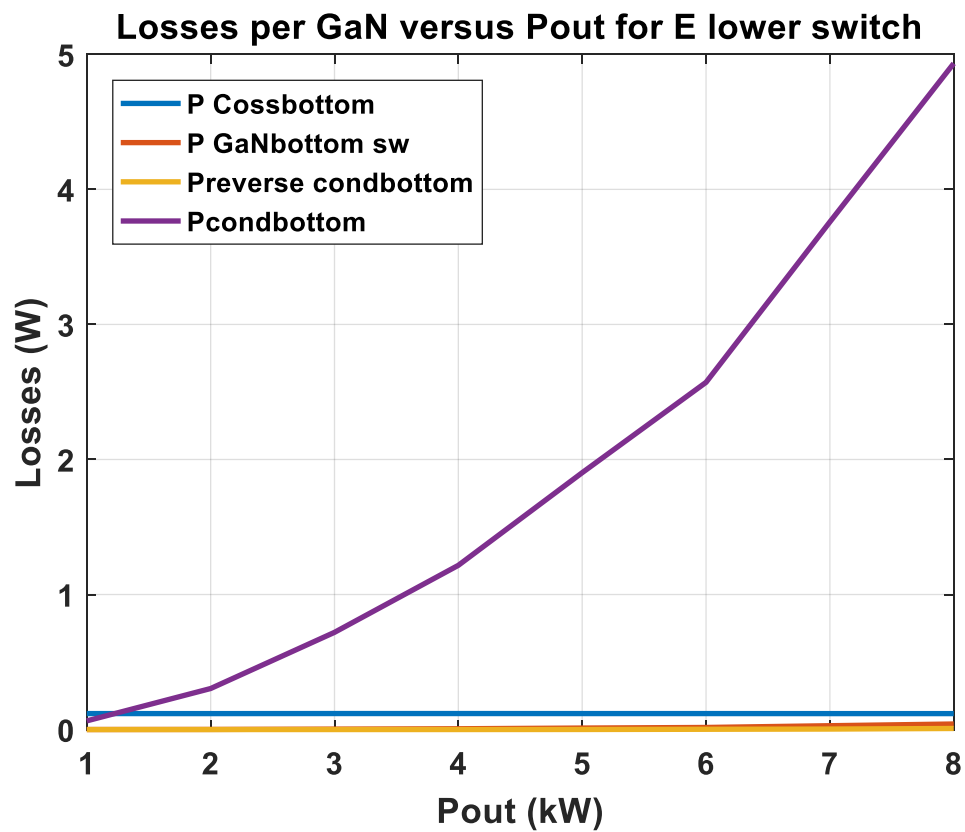
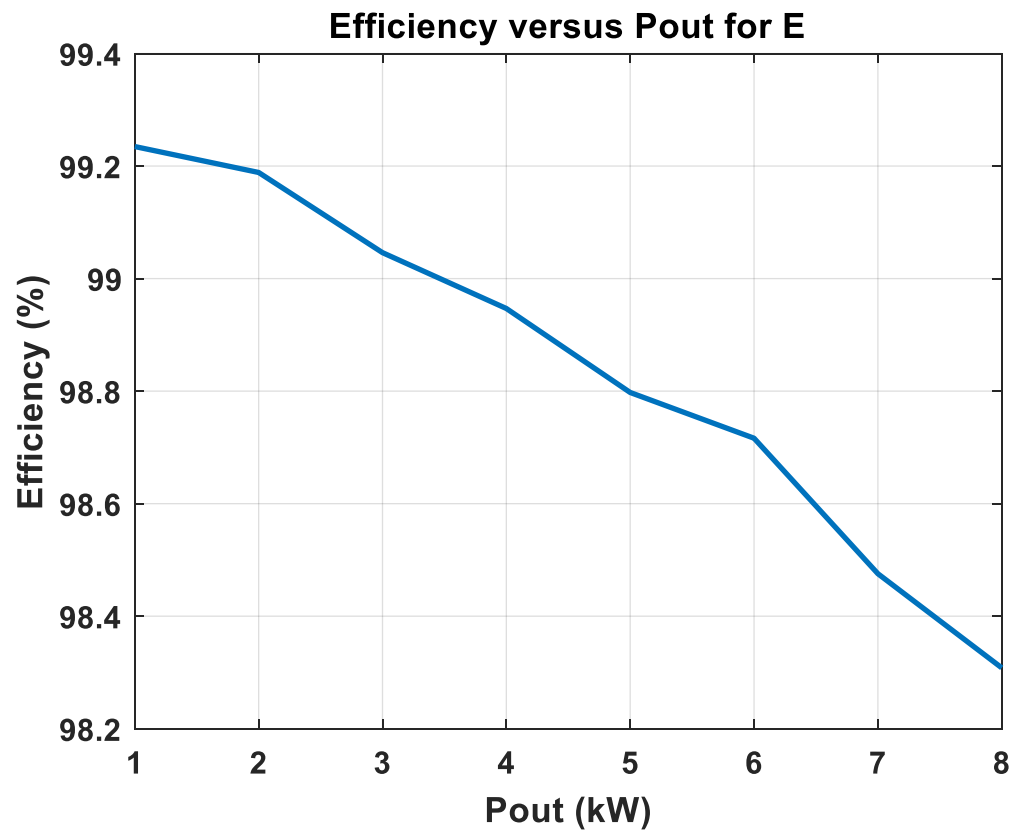


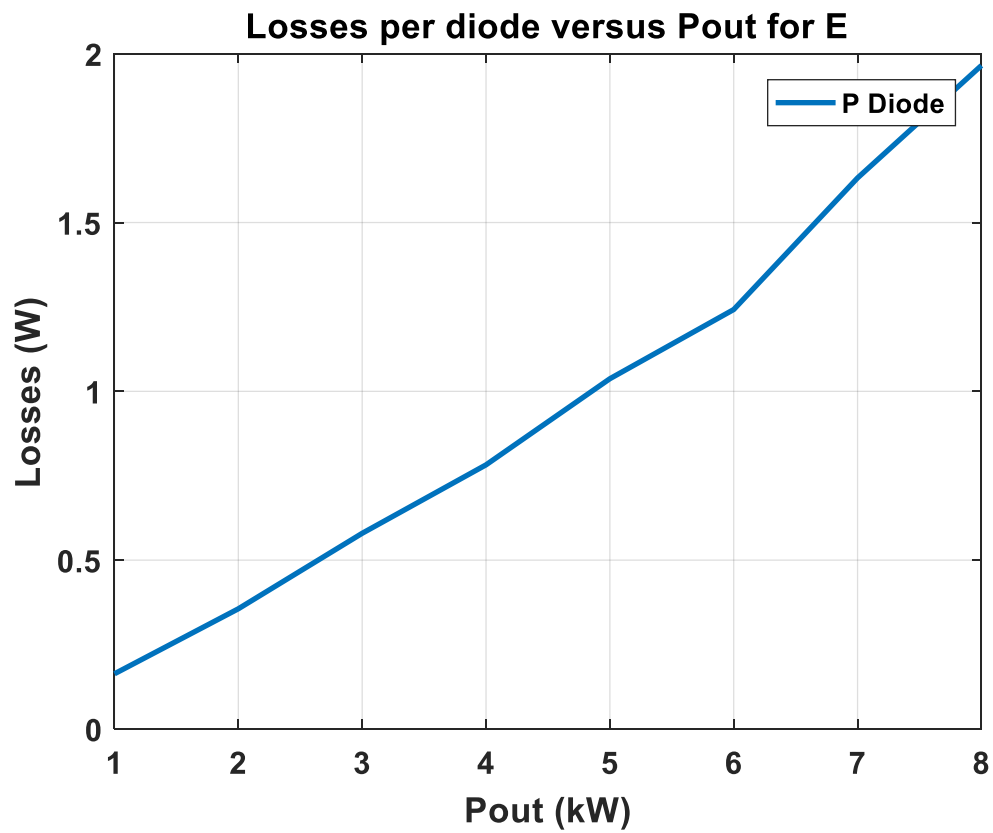
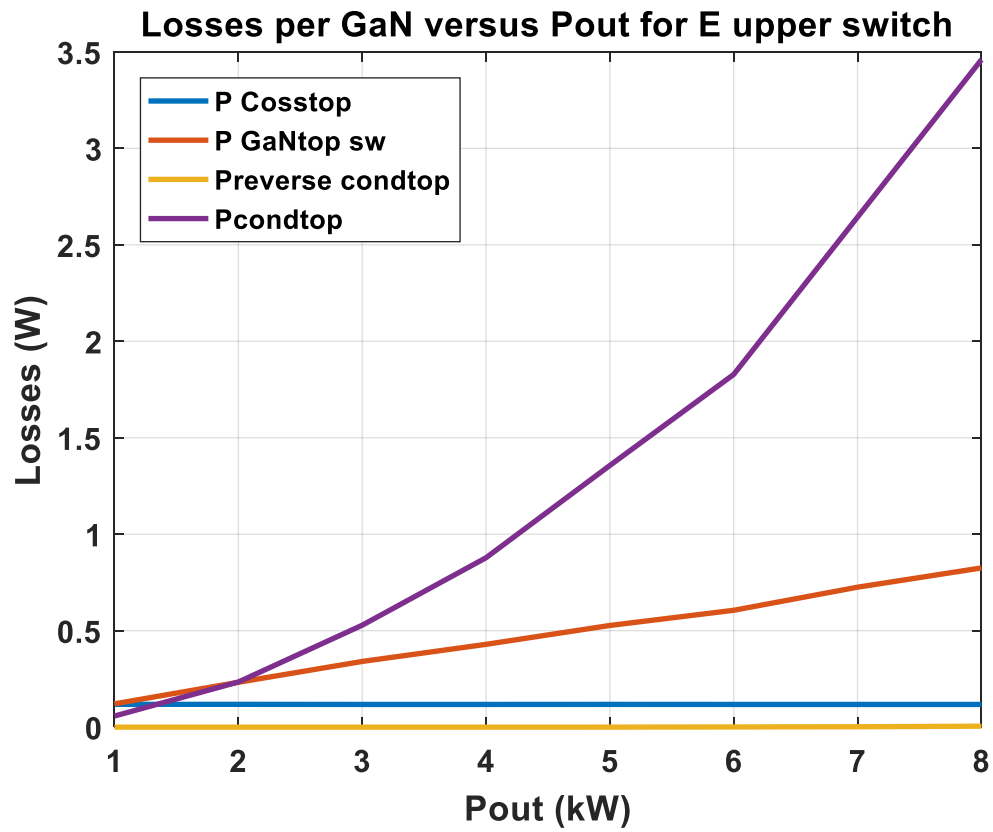


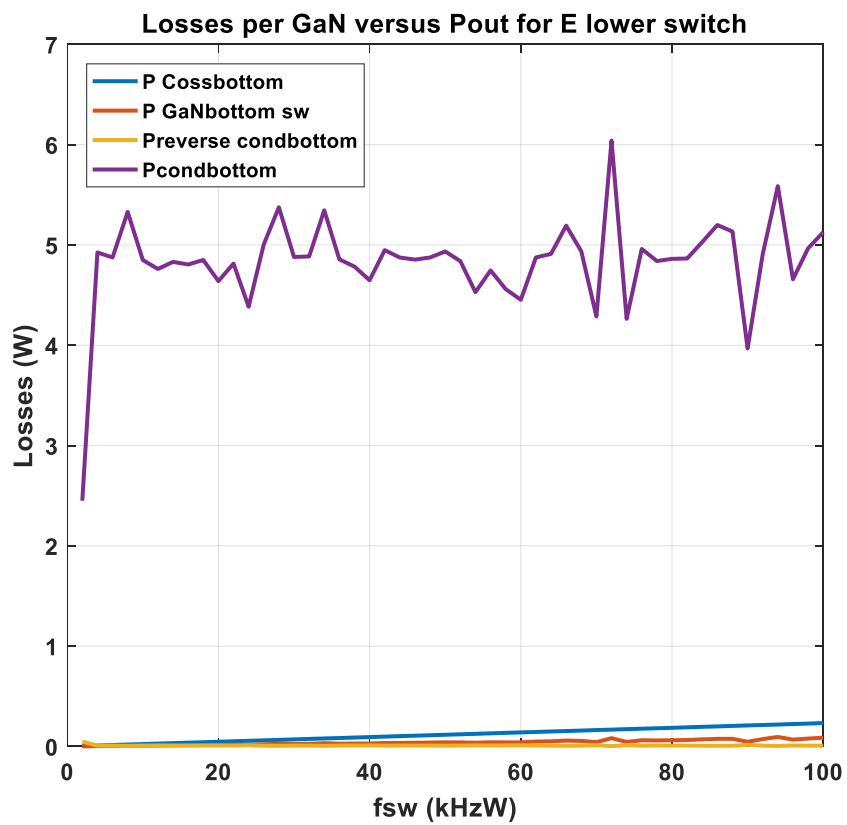
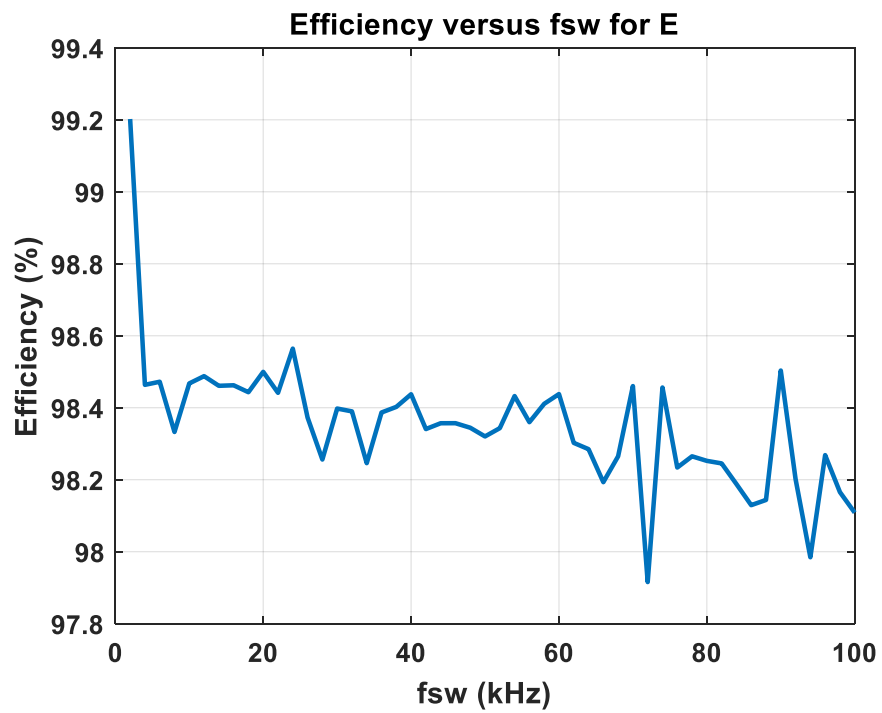


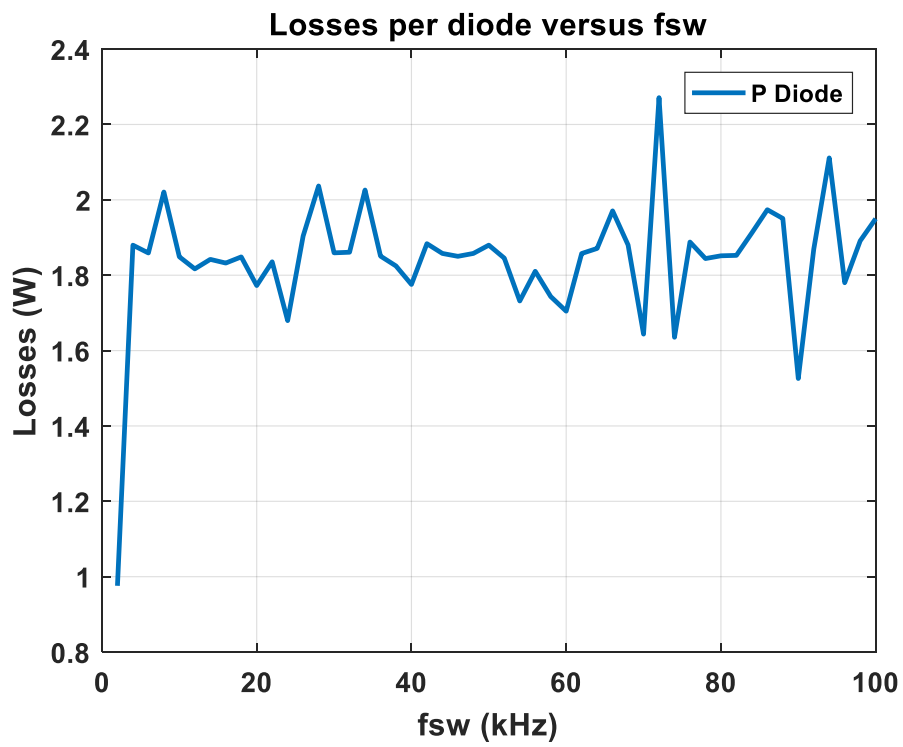
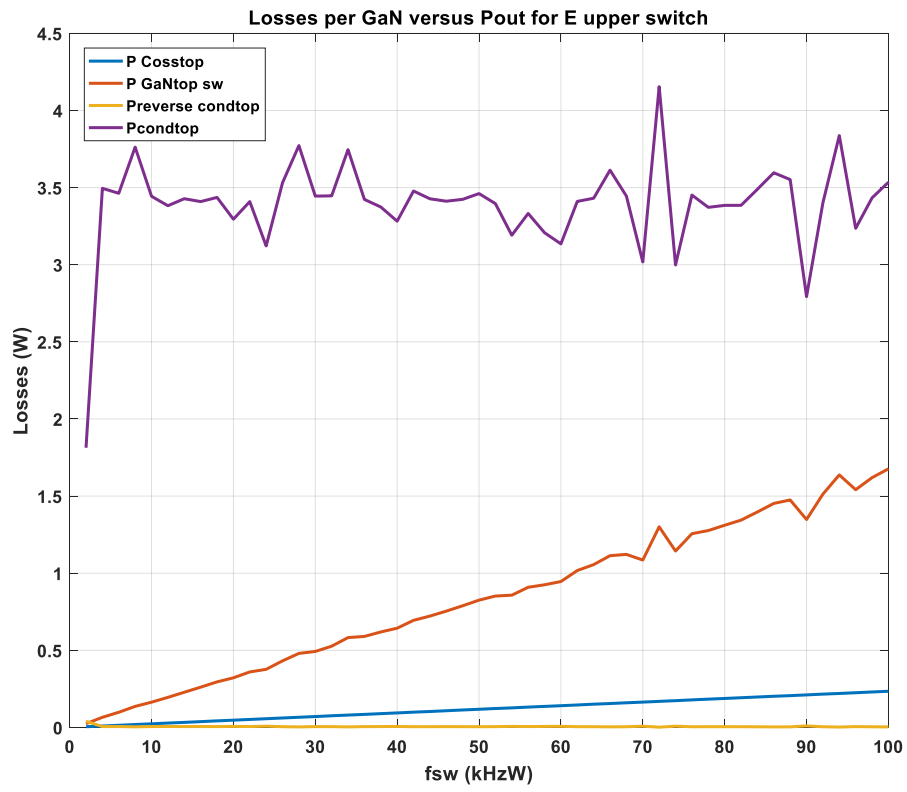


Topology E – 3 level 2 parallel inverters with GaN

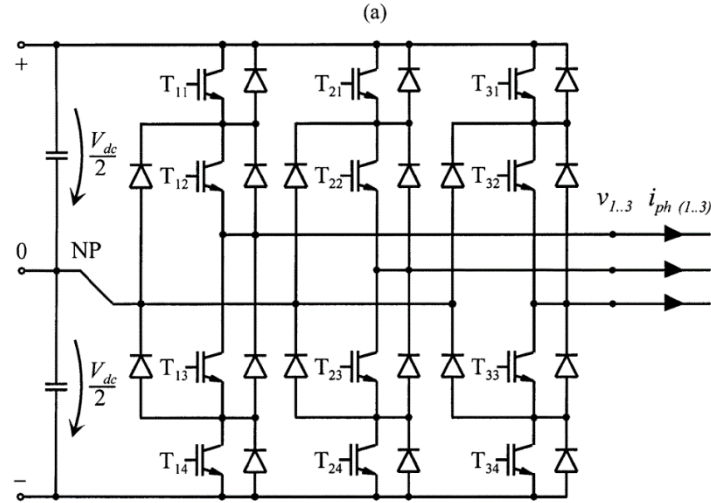
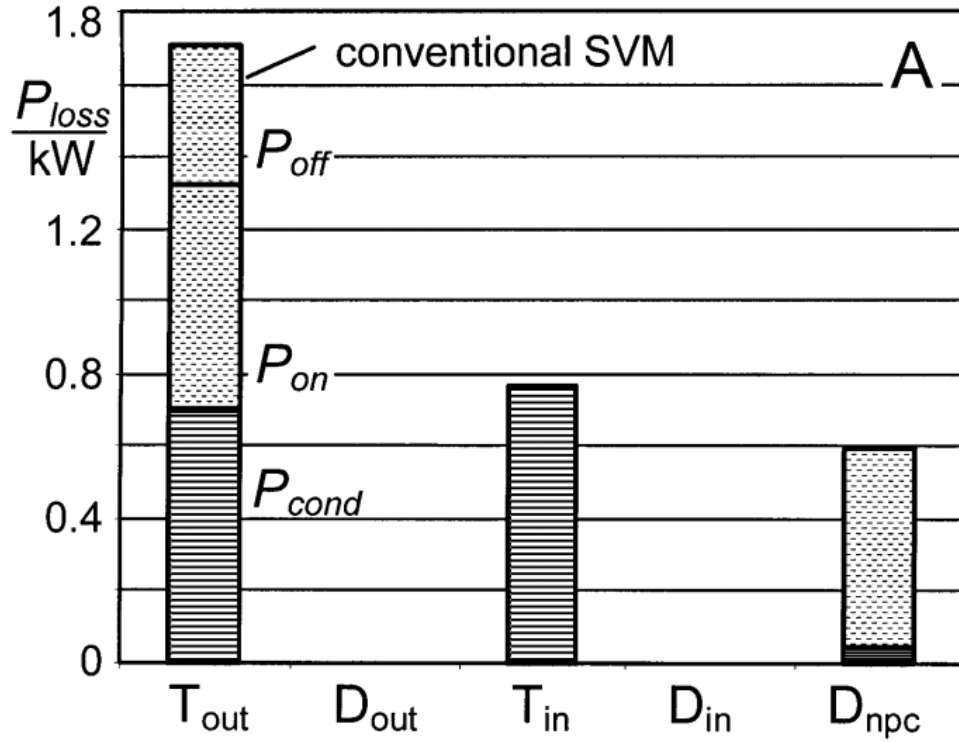








D ve E için Waveform ve Loss karşılaştırmaları



T_{out}, D_{out}	Outer switches and diodes $T_{x1}, D_{x1}, T_{x4}, D_{x4}$, $x = 1, 2, 3$.
T_{in}, D_{in}	Inner switches and diodes $T_{x2}, D_{x2}, T_{x3}, D_{x3}$, $x = 1, 2, 3$.
T_{npc}, D_{npc}	NPC switches and diodes $T_{x5}, D_{x5}, T_{x6}, D_{x6}$, $x = 1, 2, 3$.

D ve E Waveform'lardaki sorunlar

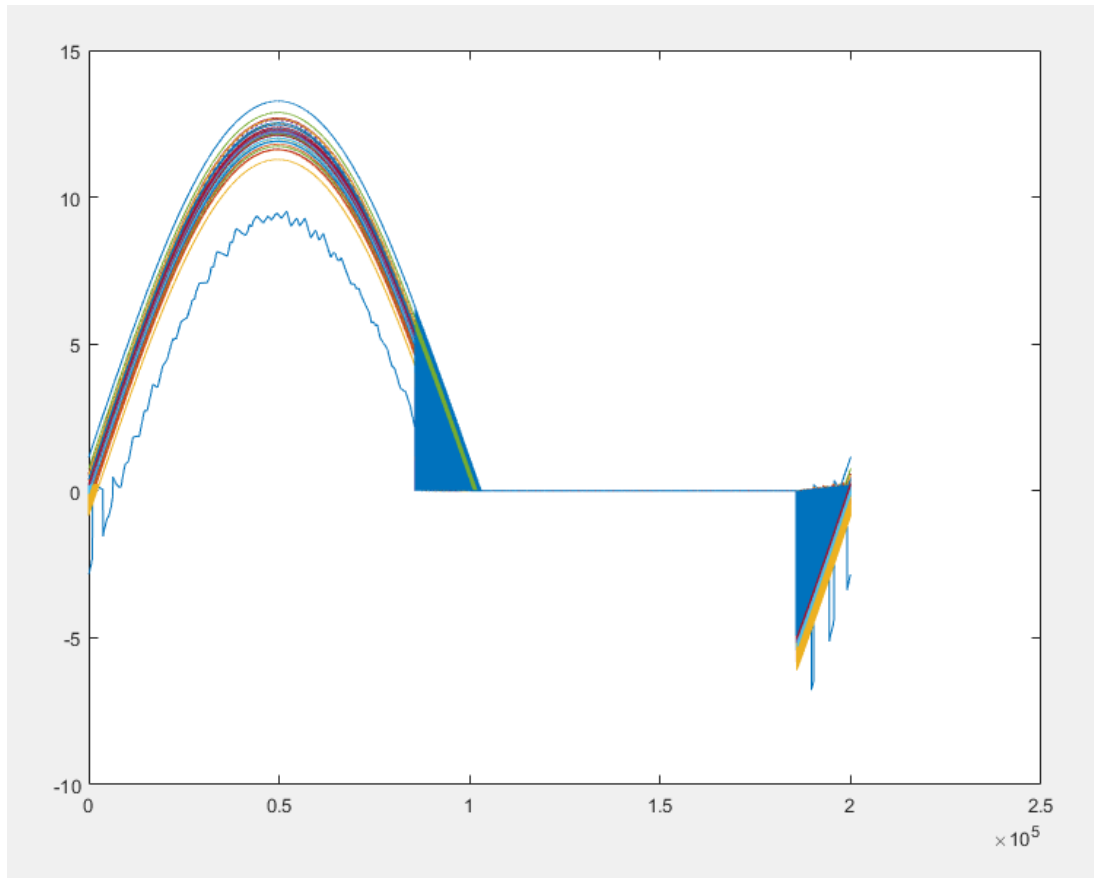


Figure: E lowersw currents

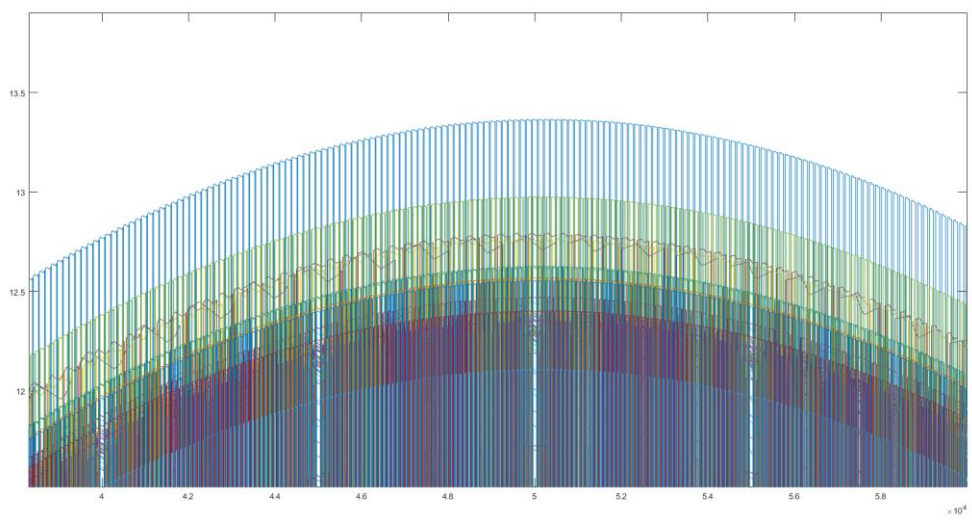


Figure: E uppersw currents

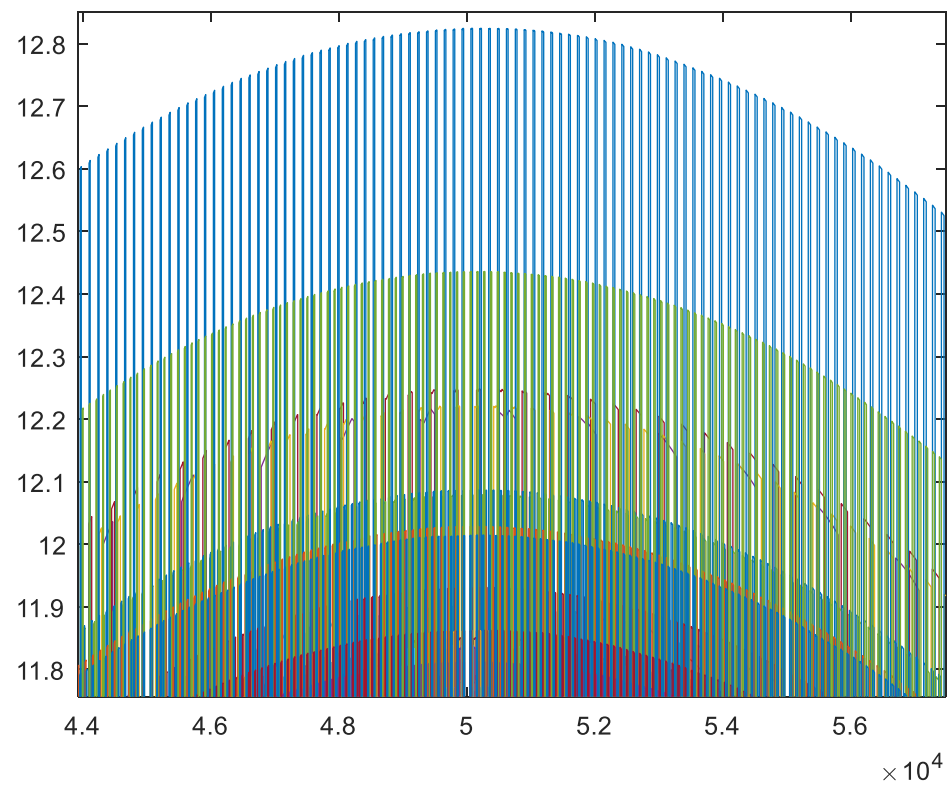


Figure: E diode currents