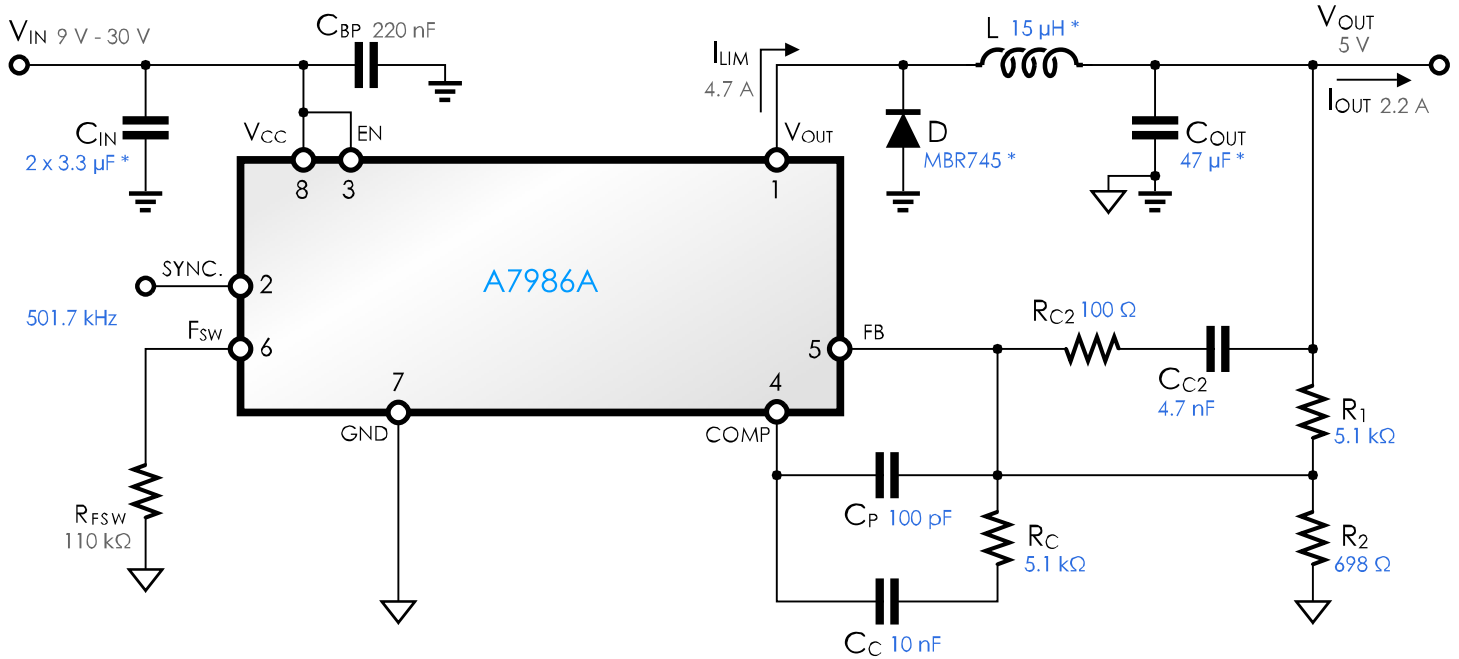


**V<sub>in</sub>:** 9 V - 30 V **V<sub>out</sub>:** 5 V **I<sub>out</sub>:** 2.2 A

**Switch Frequency:** 501.7 kHz

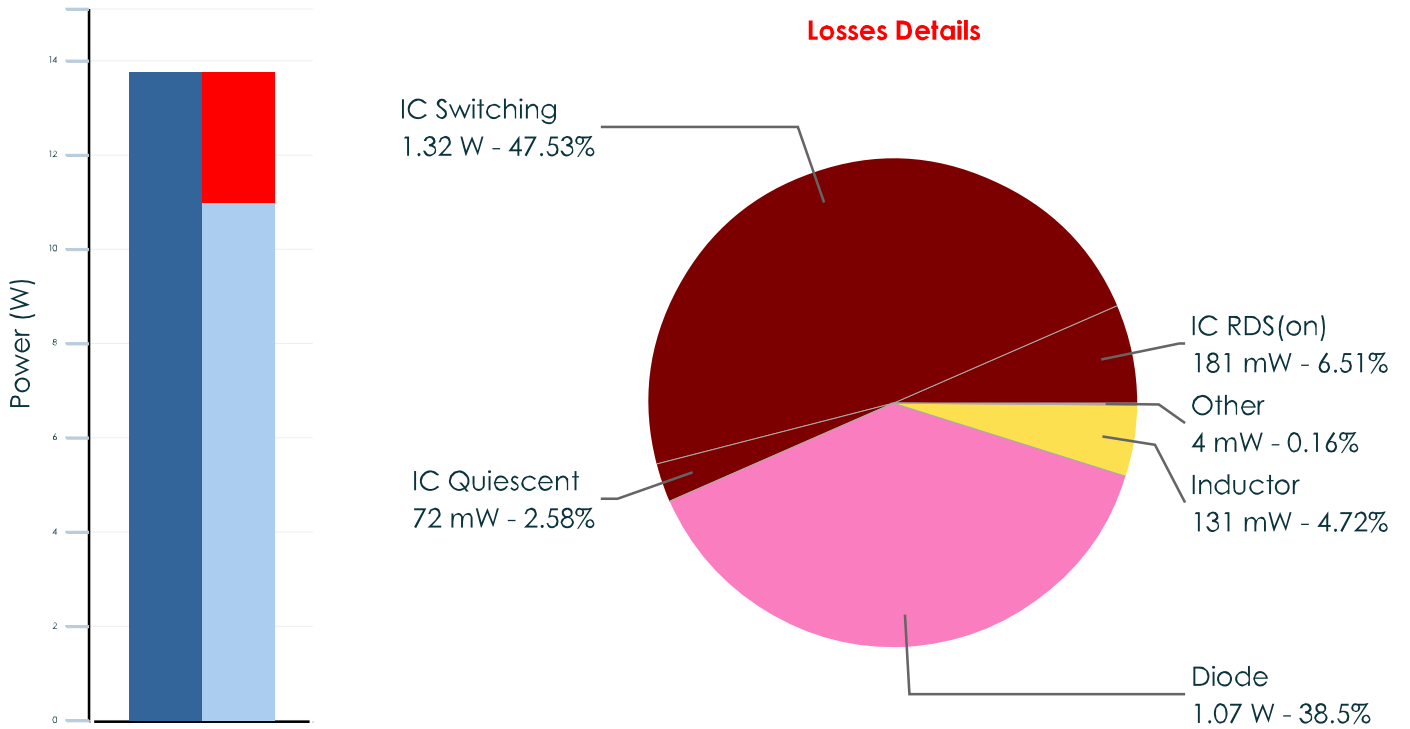
**IC:** A7986A - Power SO 8

**System Operating Condition:** **V<sub>in</sub>:** 30 V - **I<sub>out</sub>:** 2.2 A - **T<sub>a</sub>:** 86 °C


## Bill of Materials

Type	Reference	Value	Description
IC	IC	A7986A	A7986A - Power SO 8
Capacitor	Cin	2 x 3.3 µF	50 V - 10% - Kemet - C1210C335K5RACTU
Capacitor	Cout	47 µF	10 V - 20% - Taiyo Yuden - LMK325BJ476MM
Inductor	L	15 µH	5.25 A - Epcos - B82477G4153M000
Diode	D	MBR745	7.5 A, 45 V - ON
Resistor	R1	5.1 kΩ	5.1 kΩ
Resistor	R2	698 Ω	698 Ω
Capacitor	Cc	10 nF	10 nF
Resistor	Rc	5.1 kΩ	5.1 kΩ
Capacitor	Cp	100 pF	100 pF
Capacitor	Cc2	4.7 nF	4.7 nF
Resistor	Rc2	100 Ω	100 Ω
Resistor	Rfsw	110 kΩ	110 kΩ
Capacitor	Cbp	220 nF	220 nF

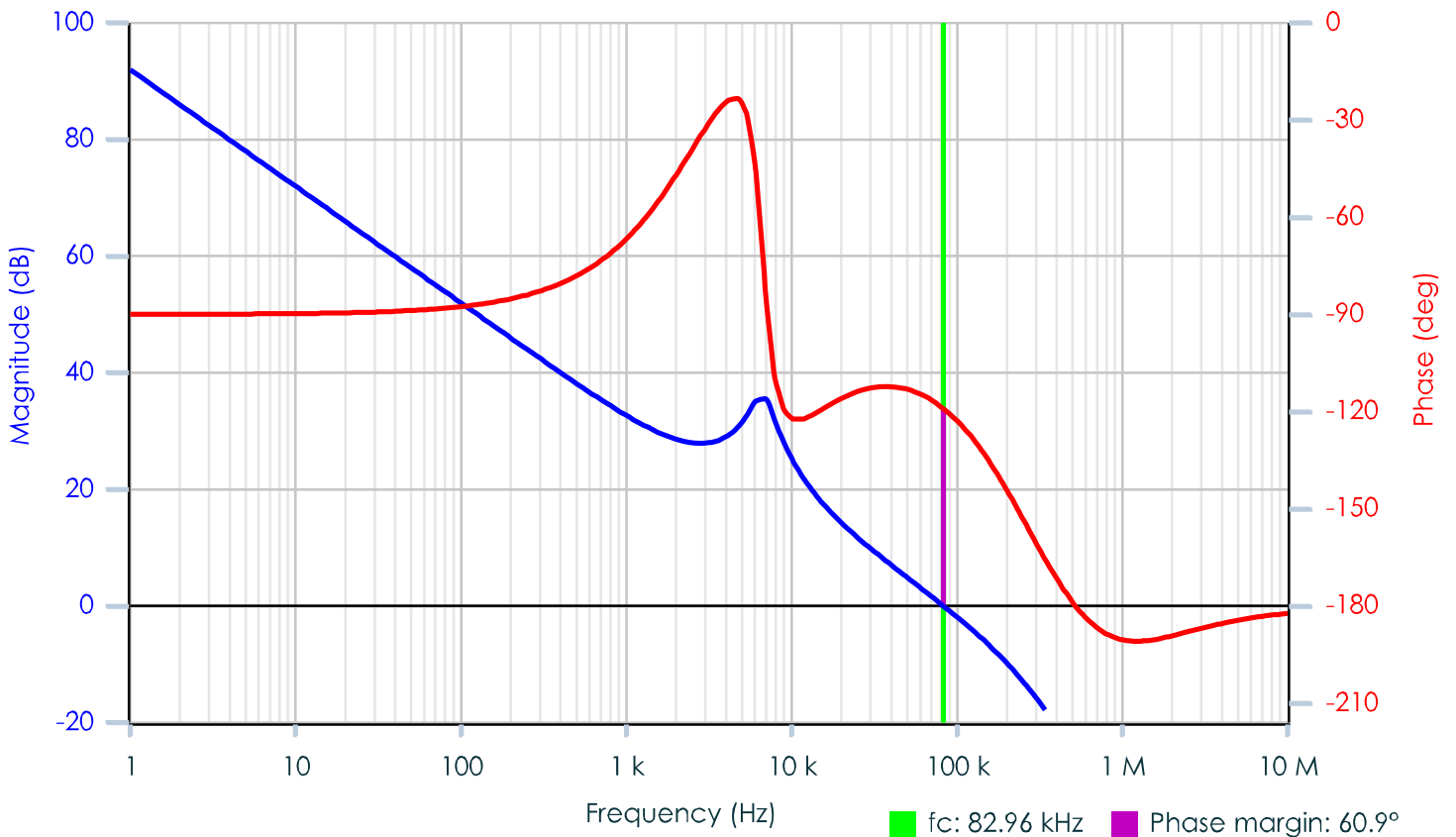
### Power Losses



■ Pin: 13.76 W    ■ Pout: 10.98 W  
■ Plosses: 2.79 W - 20.25%

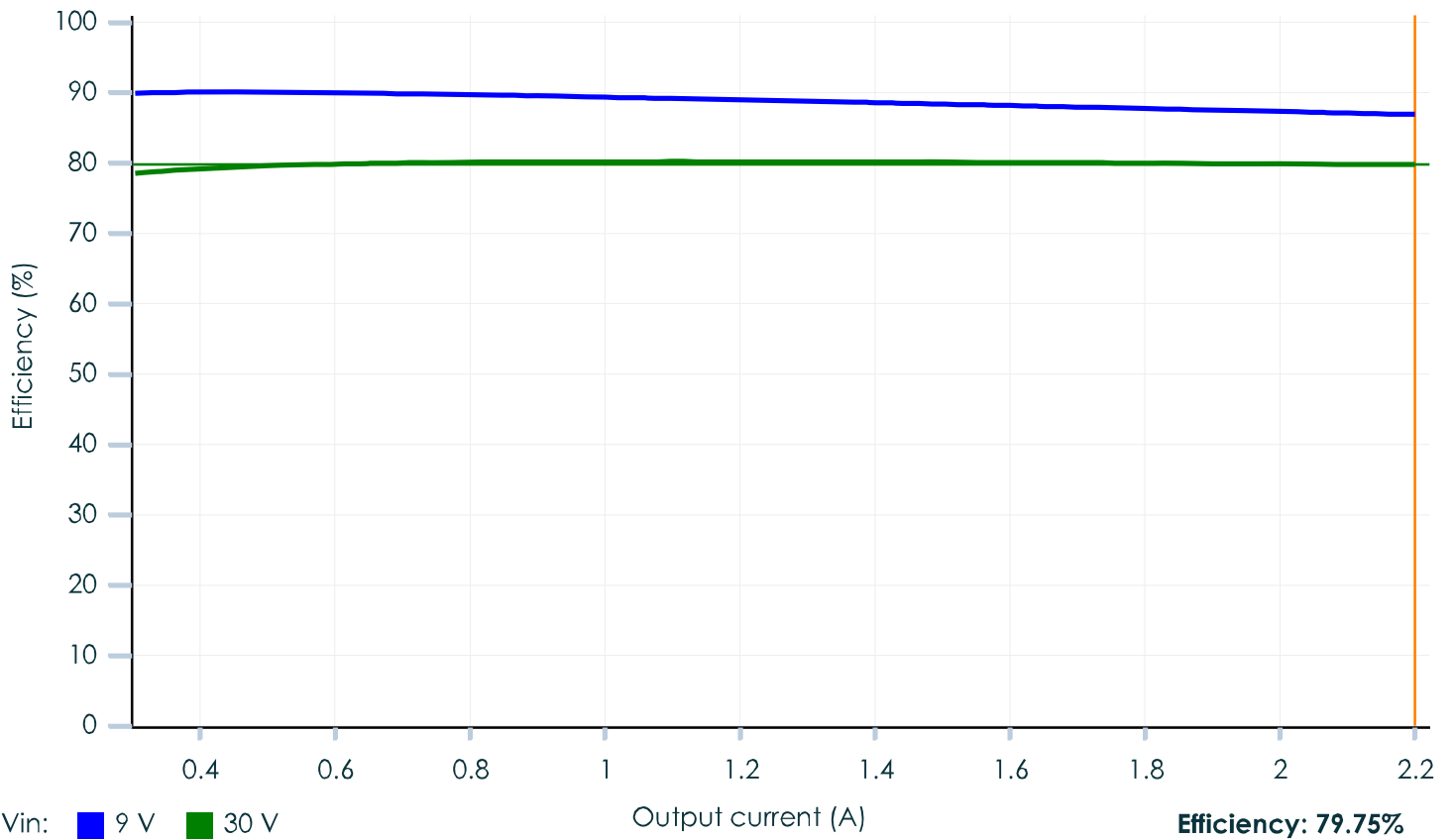
**Efficiency: 79.75%    ΔTj: 63 °C**

### Bode

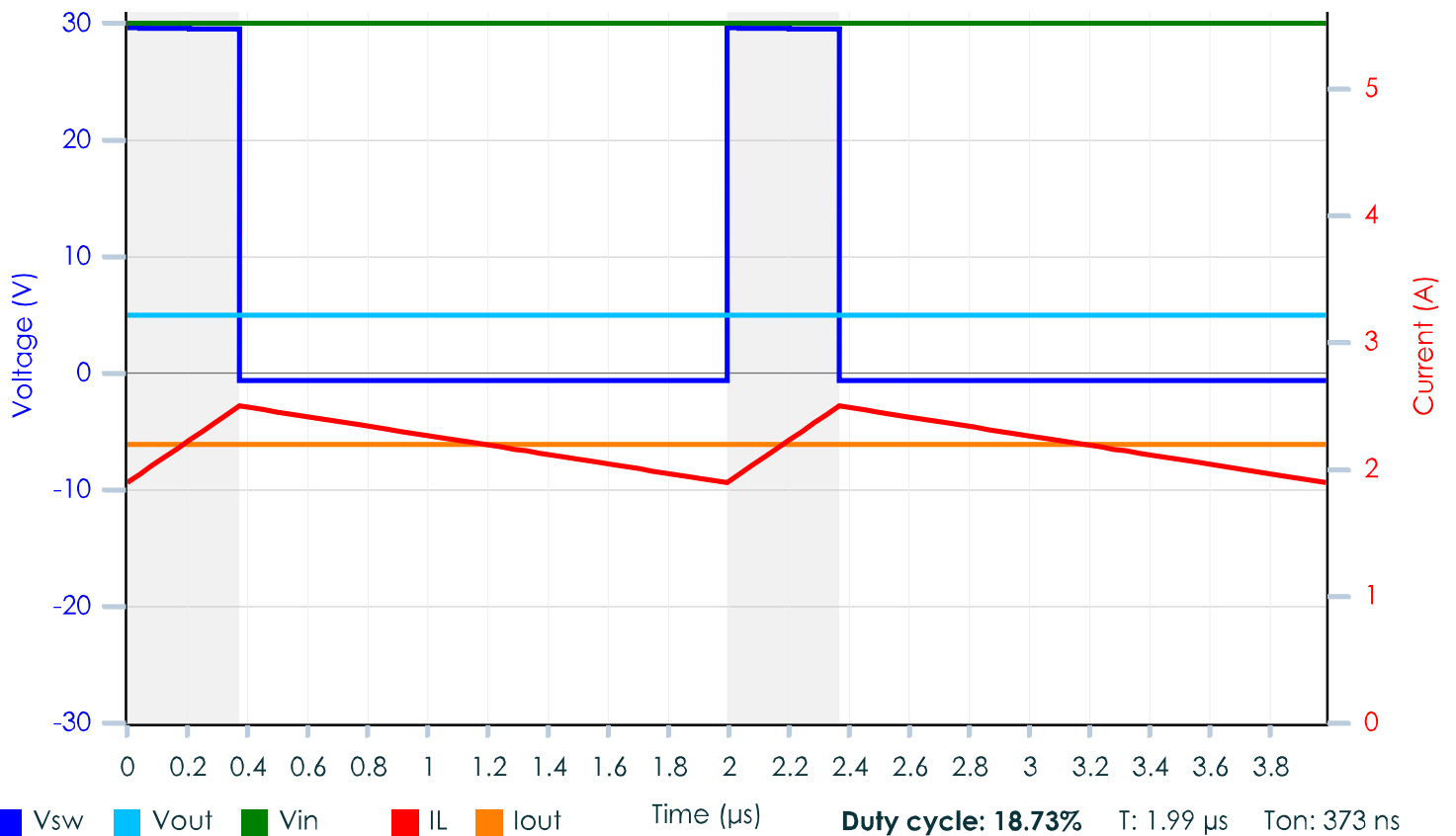


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### Efficiency



### Simulation



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