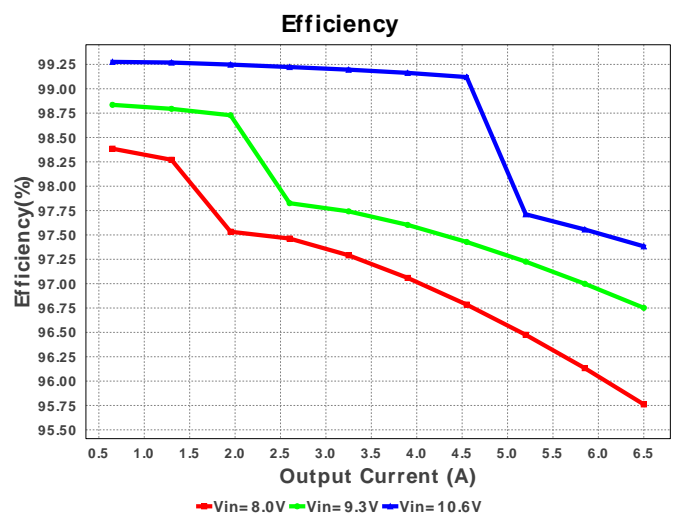
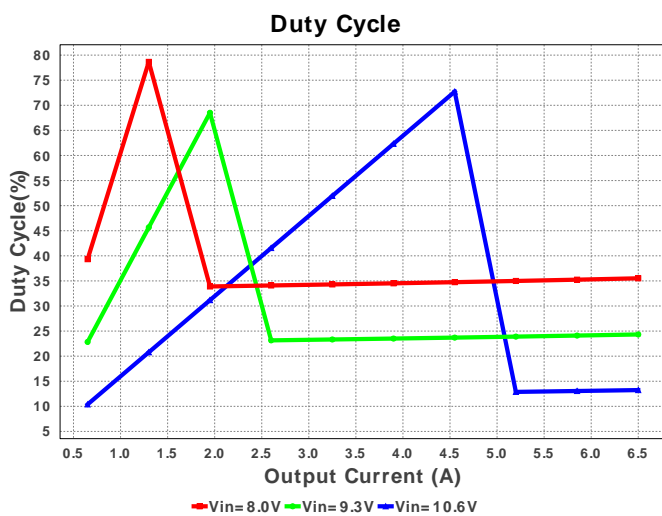
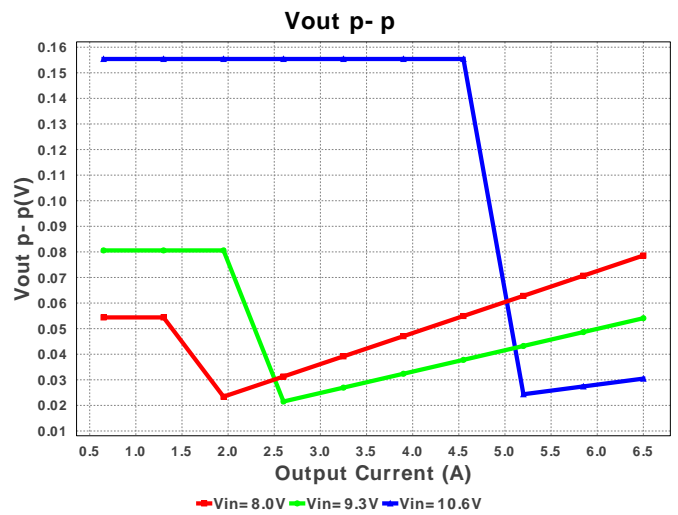
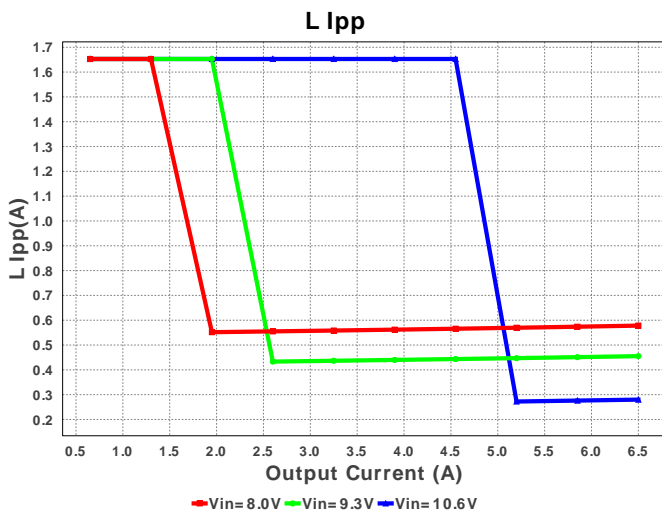
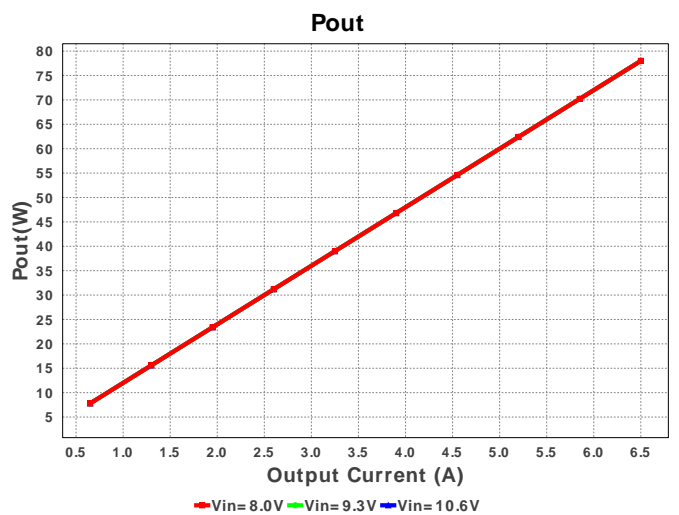
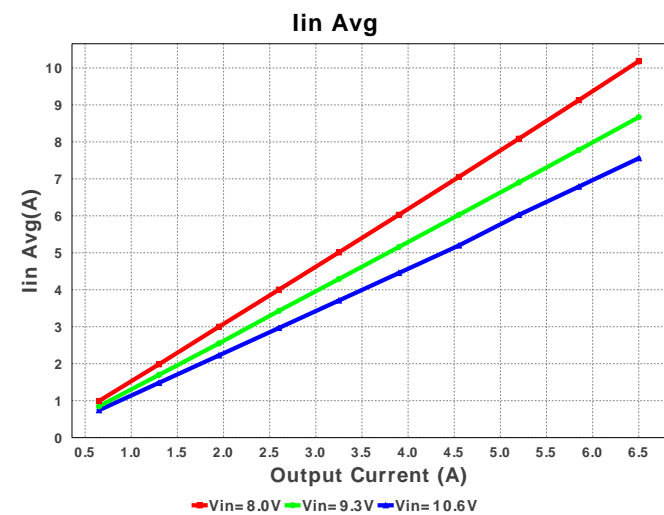
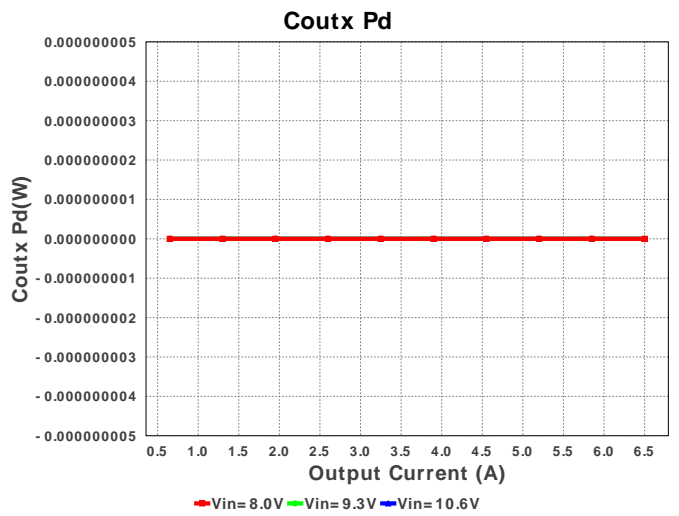
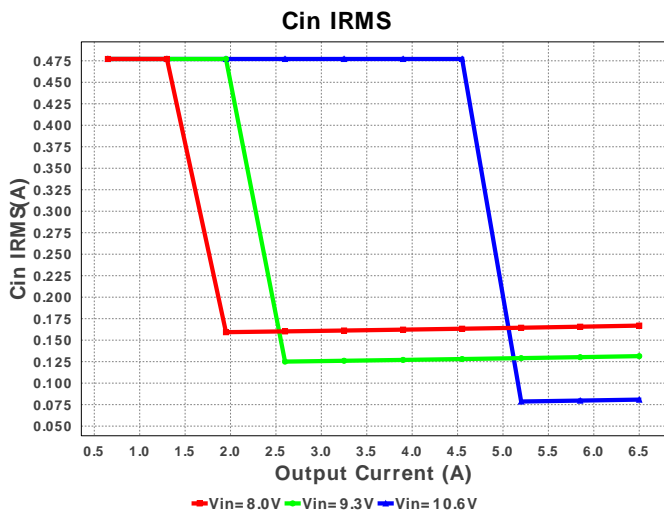
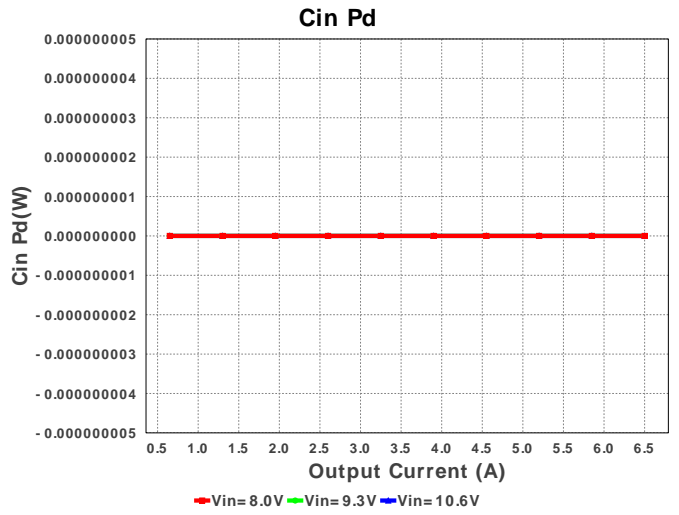
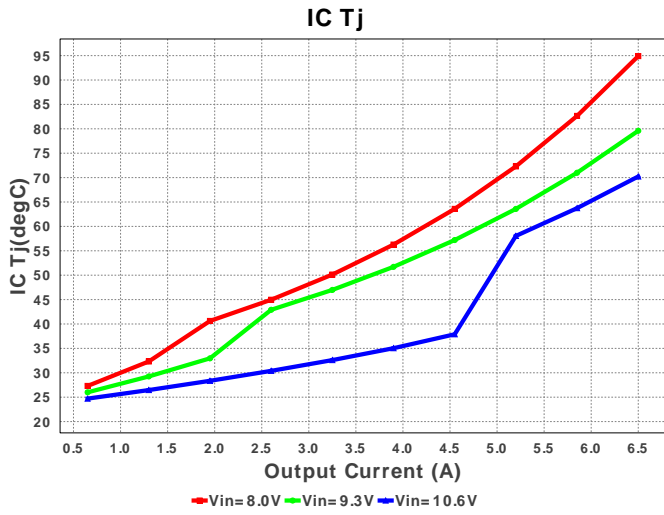
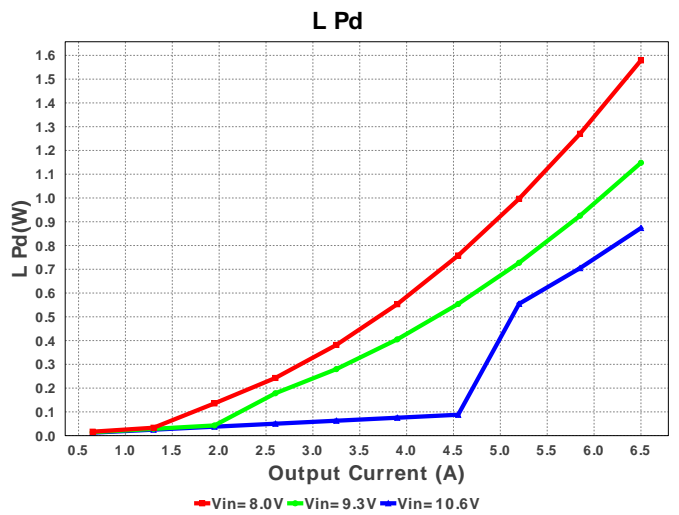
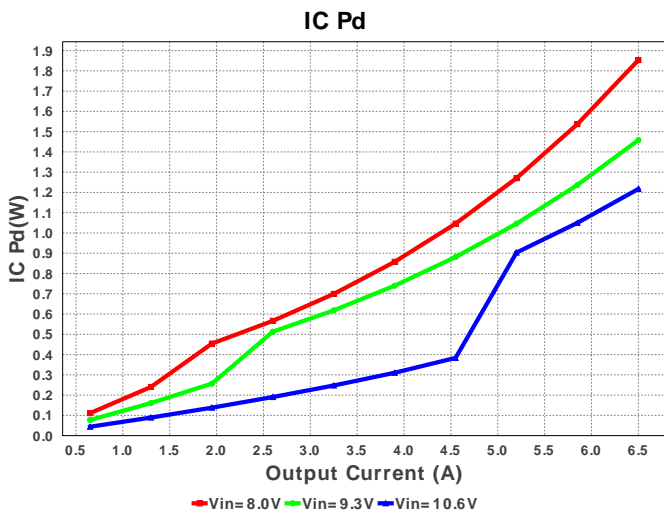
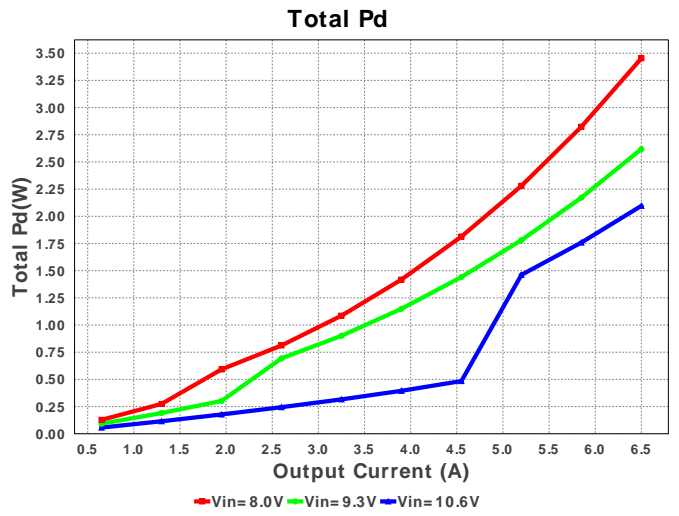
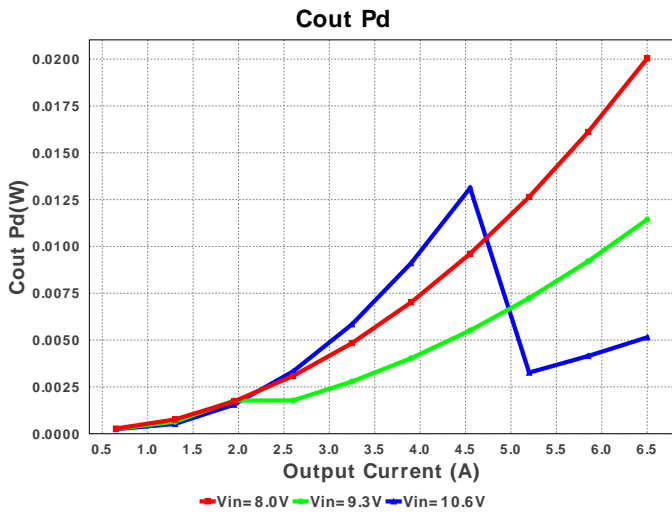
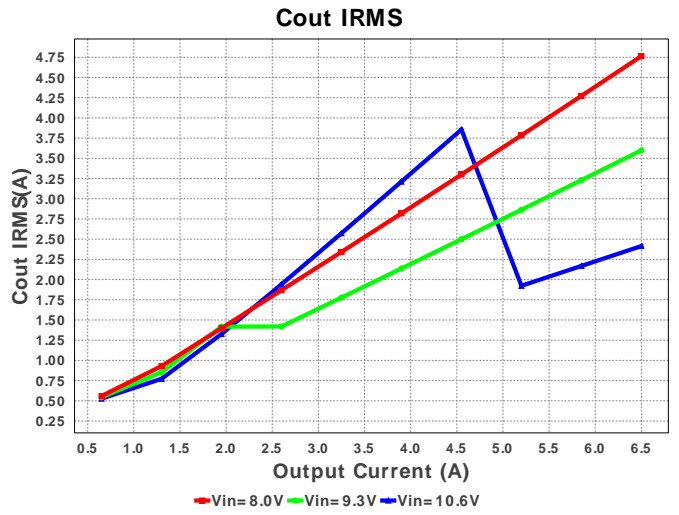
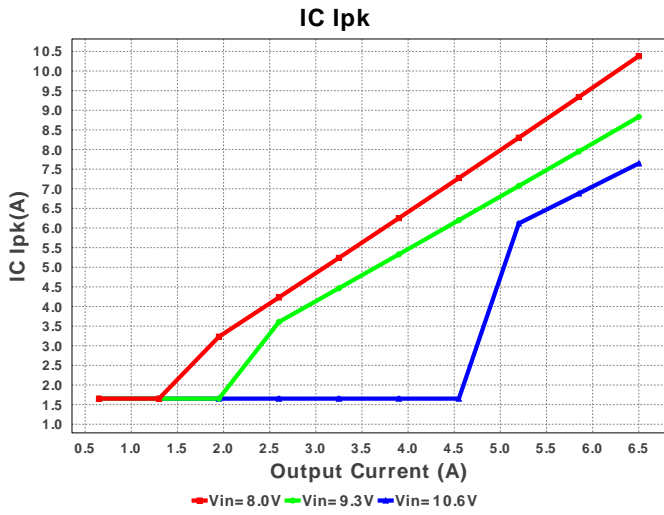
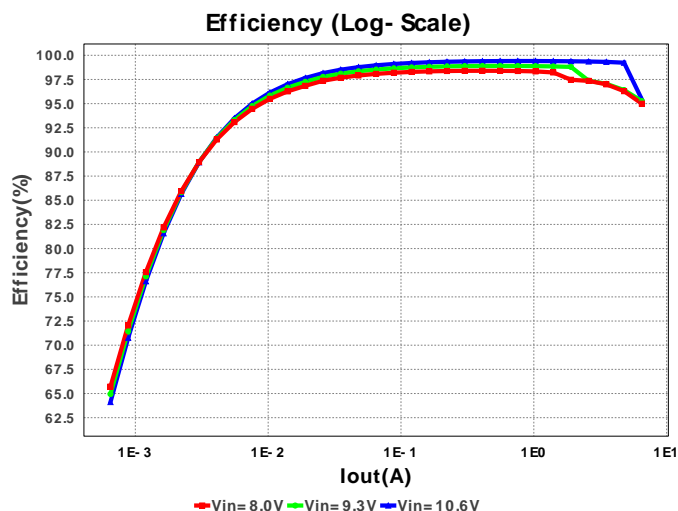
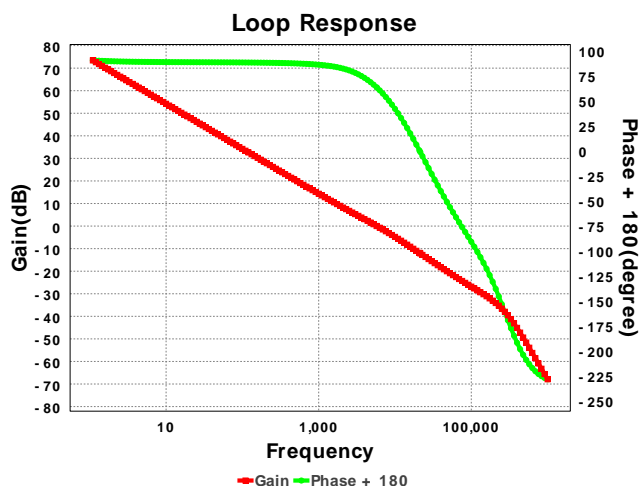


#	Name	Manufacturer	Part Number	Properties	Qty	Price	Footprint
11.	Rfbb	Yageo America	RT0805BRD0792KL Series= RT0805	Res= 92.0 kOhm Power= 125.0 mW Tolerance= 0.1%	1	\$0.05	0805 7 mm ²
12.	Rfbt	Vishay-Dale	CRCW0402825KFKED Series= CRCW..e3	Res= 825.0 kOhm Power= 63.0 mW Tolerance= 1.0%	1	\$0.01	0402 3 mm ²
13.	Rlim	Vishay-Dale	CRCW0402102KFKED Series= CRCW..e3	Res= 102.0 kOhm Power= 63.0 mW Tolerance= 1.0%	1	\$0.01	0402 3 mm ²
14.	Rt	Vishay-Dale	CRCW0402267KFKED Series= CRCW..e3	Res= 267.0 kOhm Power= 63.0 mW Tolerance= 1.0%	1	\$0.01	0402 3 mm ²
15.	U1	Texas Instruments	TPS61088RHLR	Switcher	1	\$1.60	RHL0020A 25 mm ²









Operating Values

#	Name	Value	Category	Description
1.	Cin IRMS	166.93 mA	Current	Input capacitor RMS ripple current
2.	Cout IRMS	4.765 A	Current	Output capacitor RMS ripple current
3.	IC Ipk	10.381 A	Current	Peak switch current in IC
4.	Iin Avg	10.182 A	Current	Average input current
5.	L Ipp	578.26 mA	Current	Peak-to-peak inductor ripple current
6.	BOM Count	18	General	Total Design BOM count
7.	FootPrint	377.0 mm ²	General	Total Foot Print Area of BOM components
8.	Frequency	599.251 kHz	General	Switching frequency
9.	Mode	BOOST CCM	General	PWM/PFM Mode
10.	Pout	78.0 W	General	Total output power
11.	Total BOM	\$3.92	General	Total BOM Cost
12.	Low Freq Gain	72.348 dB	Op_Point	Gain at 1Hz
13.	Vout Actual	12.001 V	Op_Point	Vout Actual calculated based on selected voltage divider resistors
14.	Cross Freq	5.596 kHz	Op_point	Bode plot crossover frequency
15.	Duty Cycle	35.519 %	Op_point	Duty cycle
16.	Efficiency	95.761 %	Op_point	Steady state efficiency
17.	Gain Marg	-12.137 dB	Op_point	Bode Plot Gain Margin
18.	IC Tj	94.901 degC	Op_point	IC junction temperature
19.	ICThetaJA	38.8 degC/W	Op_point	IC junction-to-ambient thermal resistance
20.	IOUT_OP	6.5 A	Op_point	Iout operating point
21.	Phase Marg	69.188 deg	Op_point	Bode Plot Phase Margin
22.	VIN_OP	8.0 V	Op_point	Vin operating point
23.	Vout p-p	78.584 mV	Op_point	Peak-to-peak output ripple voltage
24.	Cin Pd	0.0 W	Power	Input capacitor power dissipation
25.	Cout Pd	20.038 mW	Power	Output capacitor power dissipation
26.	Coutx Pd	0.0 W	Power	Output capacitor_x power loss
27.	IC Pd	1.853 W	Power	IC power dissipation
28.	L Pd	1.579 W	Power	Inductor power dissipation
29.	Total Pd	3.453 W	Power	Total Power Dissipation
30.	Vout Tolerance	3.633 %		Vout Tolerance based on IC Tolerance (no load) and voltage divider resistors if applicable

Design Inputs

#	Name	Value	Description
1.	Iout	6.5	Maximum Output Current
2.	VinMax	10.6	Maximum input voltage
3.	VinMin	8.0	Minimum input voltage
4.	Vout	12.0	Output Voltage
5.	base_pn	TPS61088	Base Product Number
6.	source	DC	Input Source Type
7.	Ta	23.0	Ambient temperature

Design Assistance

1. **TPS61088** Product Folder : <http://www.ti.com/product/TPS61088> : contains the data sheet and other resources.

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