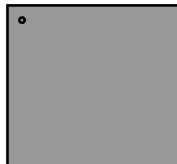
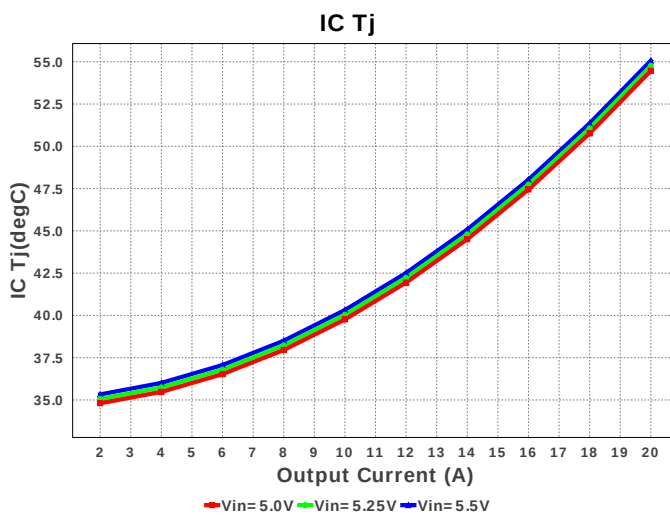
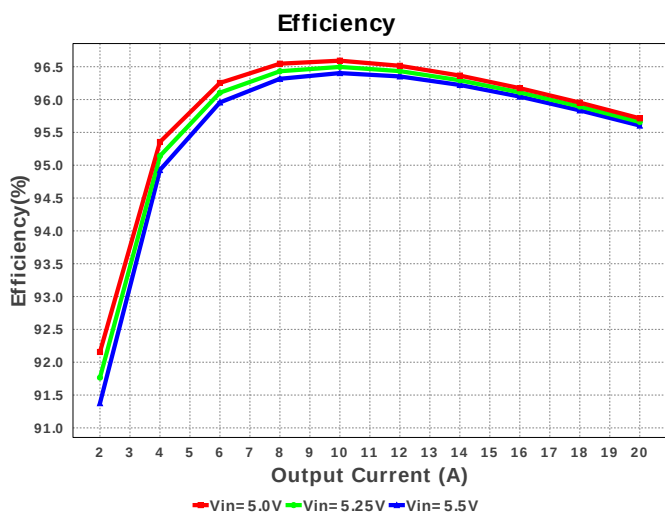
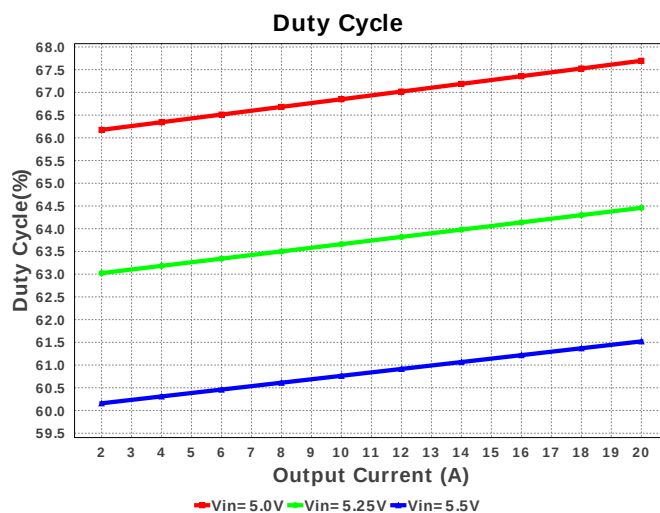
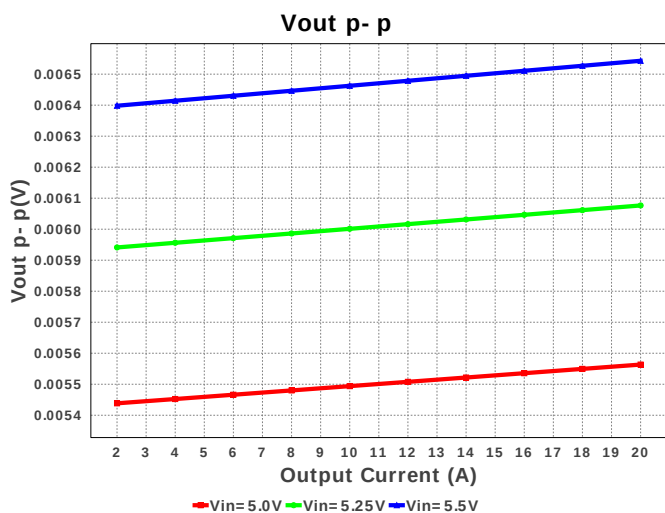
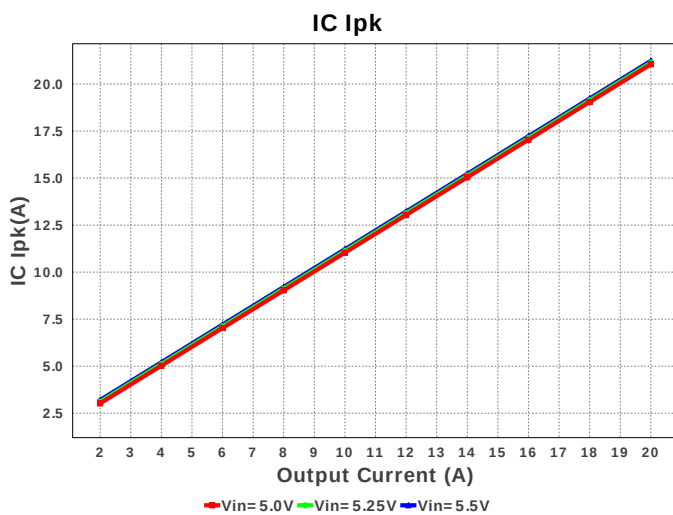
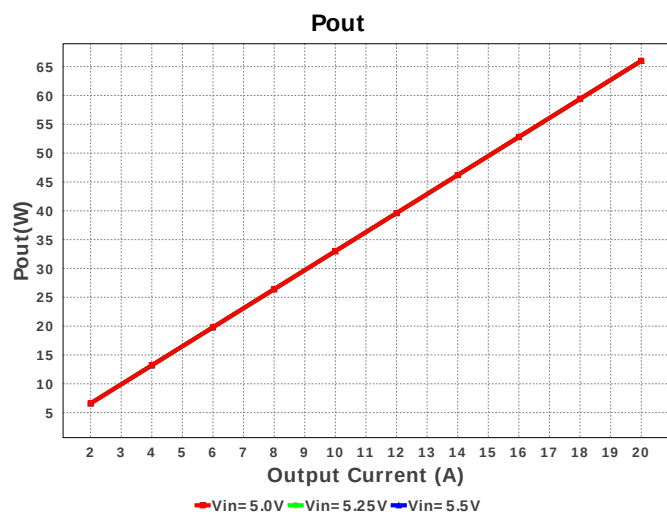
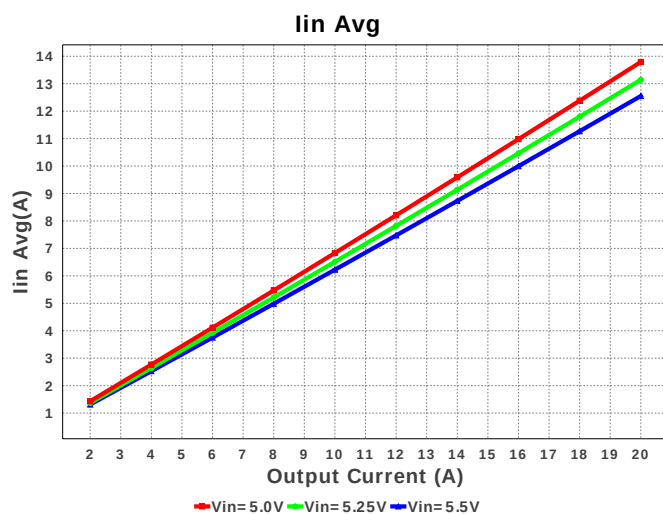
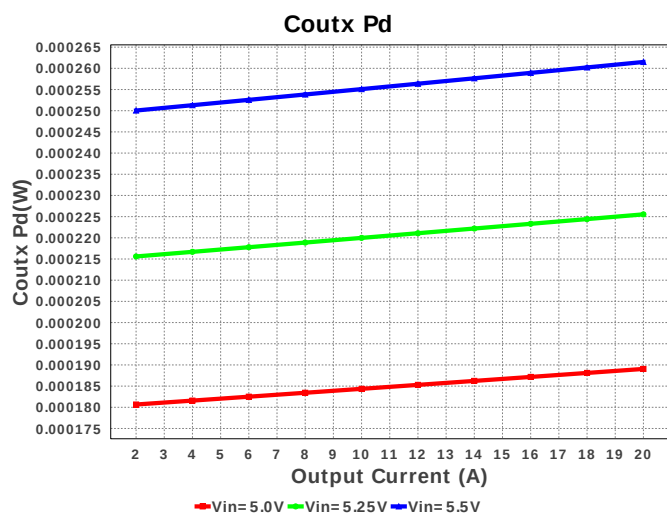
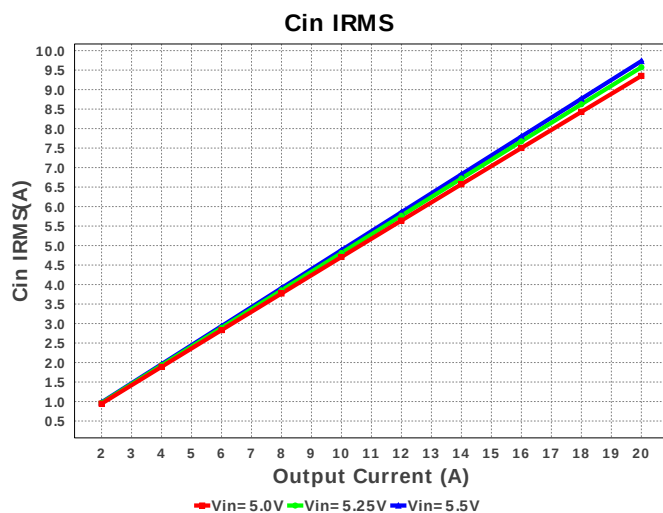
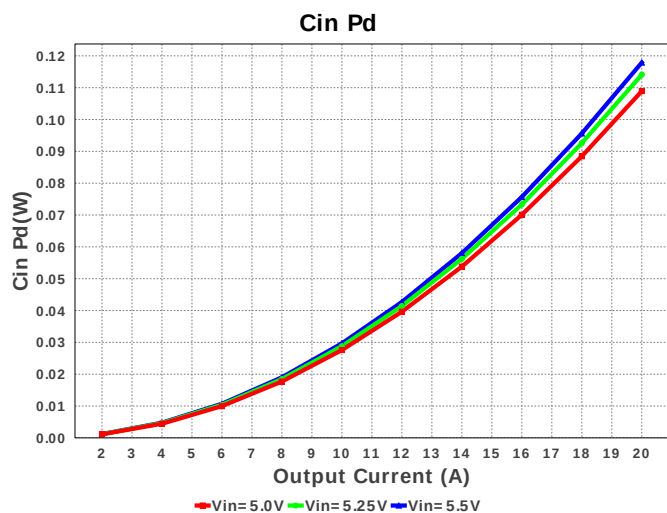


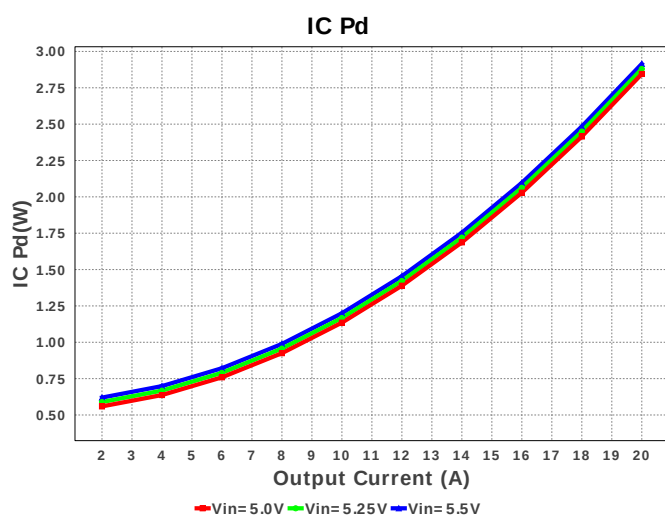
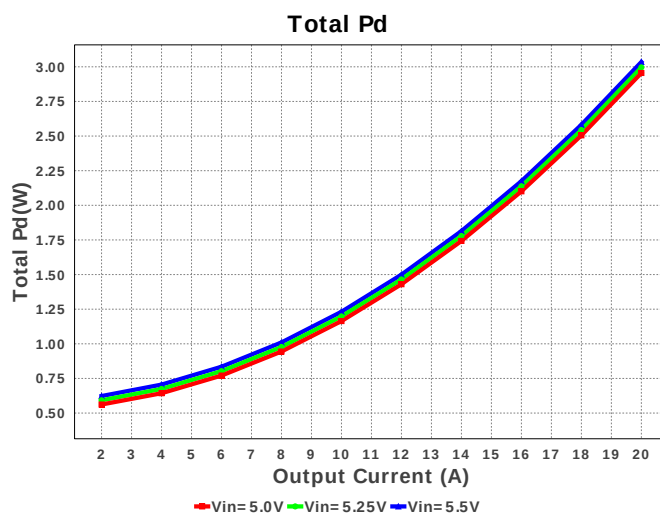
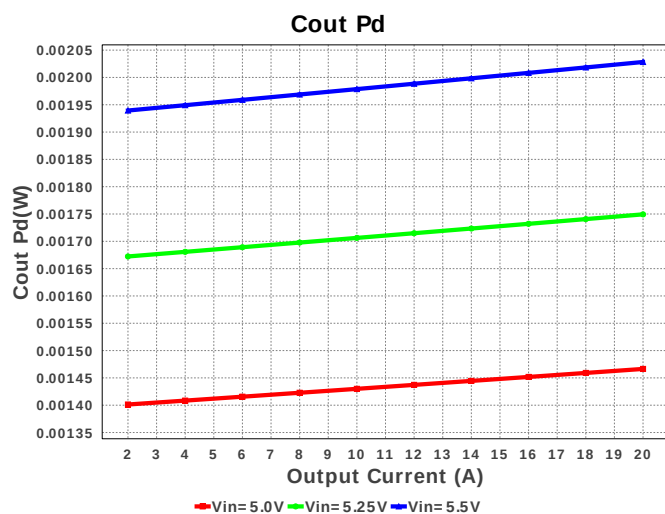
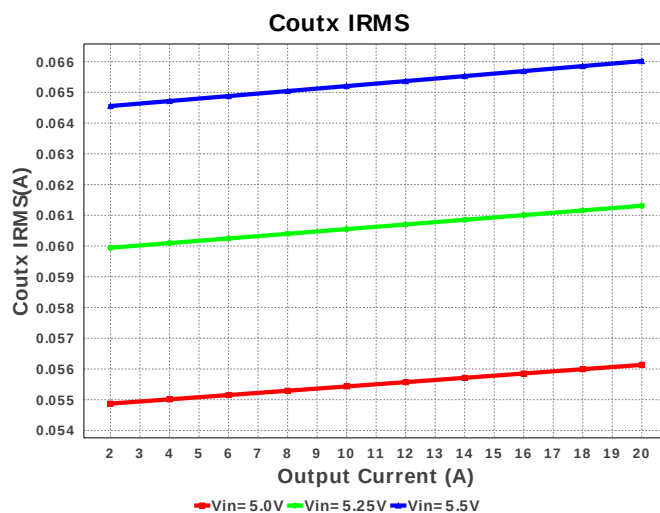
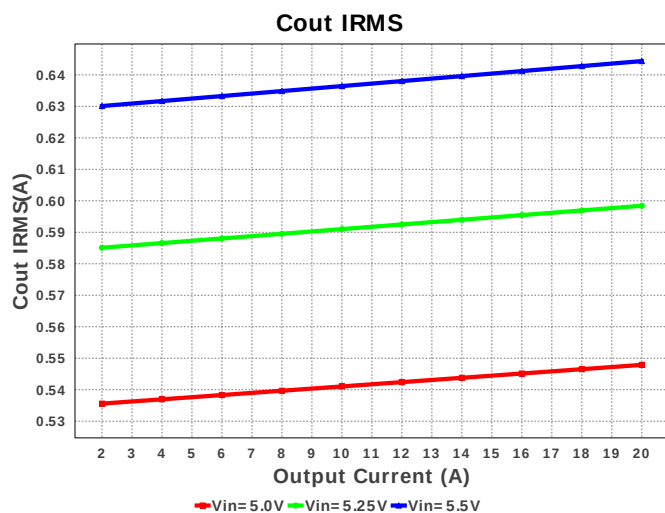


Device = LMZ31520RLGR
Topology = Buck
Created = 6/23/16 8:39:25 AM
BOM Cost = \$15.24
BOM Count = 11
Total Pd = 3.03W

#	Name	Manufacturer	Part Number	Properties	Qty	Price	Footprint
7.	U1	Texas Instruments	LMZ31520RLGR	Switcher	1	\$14.00	 R-PB4QFN-N72 306 mm ²







Operating Values

#	Name	Value	Category	Description
1.	Cin IRMS	9.731 A	Current	Input capacitor RMS ripple current
2.	Cout IRMS	644.367 mA	Current	Output capacitor RMS ripple current
3.	Coutx IRMS	66.018 mA	Current	Output capacitor x RMS ripple current
4.	IC IpK	21.23 A	Current	Peak switch current in IC
5.	Iin Avg	12.552 A	Current	Average input current
6.	BOM Count	11	General	Total Design BOM count
7.	FootPrint	652.0 mm ²	General	Total Foot Print Area of BOM components
8.	Frequency	500.0 kHz	General	Switching frequency
9.	Pout	66.0 W	General	Total output power
10.	Total BOM	\$15.24	General	Total BOM Cost
11.	Vout OP	3.3 V	Op_Point	Operational Output Voltage

#	Name	Value	Category	Description
12.	Duty Cycle	61.521 %	Op_point	Duty cycle
13.	Efficiency	95.604 %	Op_point	Steady state efficiency
14.	IC Tj	55.065 degC	Op_point	IC junction temperature
15.	ICThetaJA	8.6 degC/W	Op_point	IC junction-to-ambient thermal resistance
16.	IOUT_OP	20.0 A	Op_point	Iout operating point
17.	VIN_OP	5.5 V	Op_point	Vin operating point
18.	Vout p-p	6.543 mV	Op_point	Peak-to-peak output ripple voltage
19.	Cin Pd	117.89 mW	Power	Input capacitor power dissipation
20.	Cout Pd	2.028 mW	Power	Output capacitor power dissipation
21.	Coutx Pd	261.499 μ W	Power	Output capacitor_x power loss
22.	IC Pd	2.914 W	Power	IC power dissipation
23.	Total Pd	3.035 W	Power	Total Power Dissipation
24.	Vout Tolerance	303.03 m%		Vout Tolerance based on IC Tolerance (no load) and voltage divider resistors if applicable

Design Inputs

#	Name	Value	Description
1.	Iout	20.0	Maximum Output Current
2.	VinMax	5.5	Maximum input voltage
3.	VinMin	5.0	Minimum input voltage
4.	Vout	3.3	Output Voltage
5.	base_pn	LMZ31520	Texas Instruments Base Part Number
6.	source	DC	Input Source Type
7.	ta	30.0	Ambient temperature

Design Assistance

1. LMZ31520 Product Folder : <http://www.ti.com/product/LMZ31520> : contains the data sheet and other resources.

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You should completely validate and test your design implementation to confirm the system functionality for your application prior to production.

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