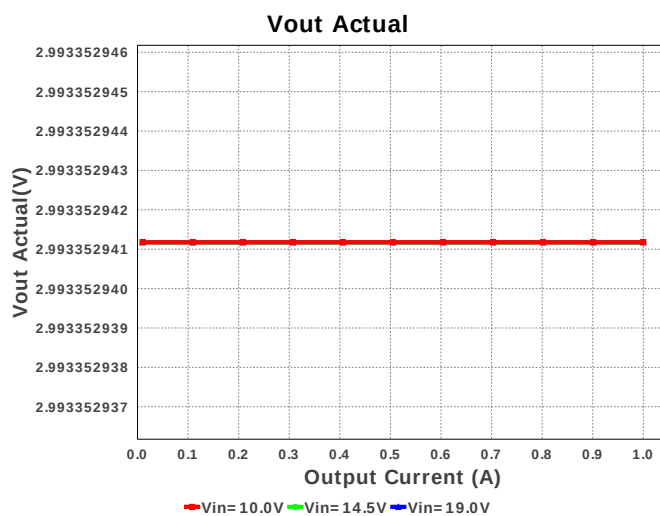
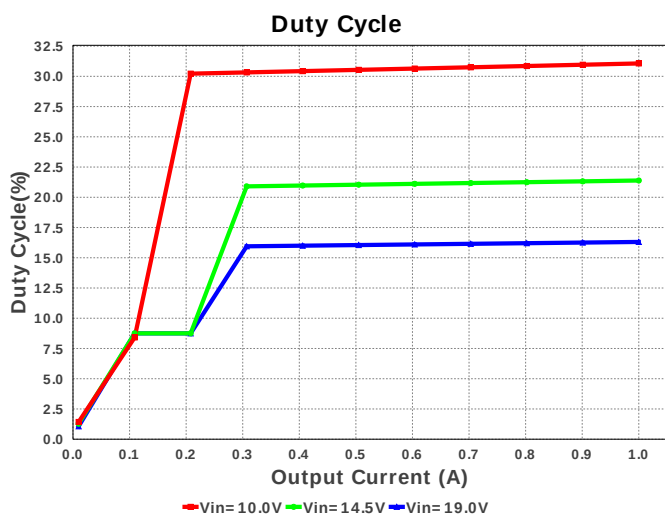
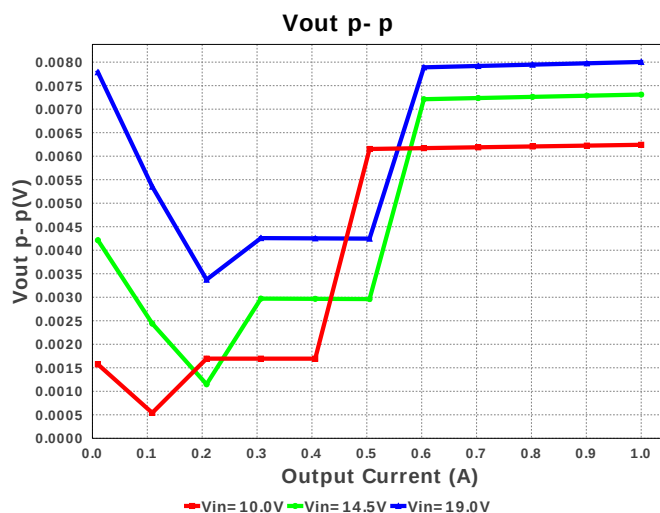
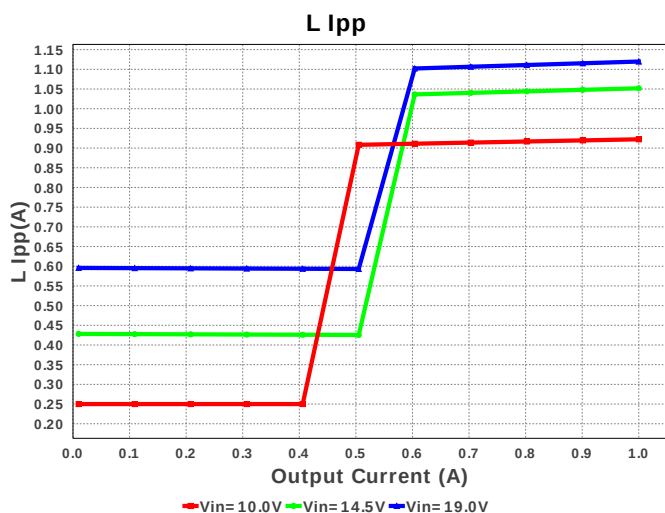
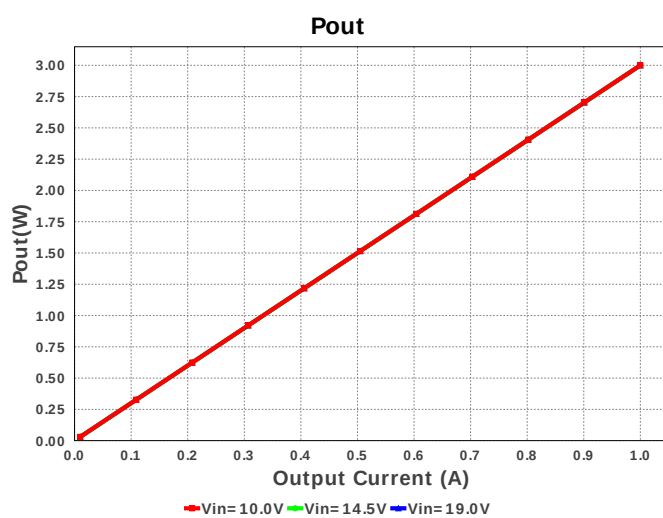
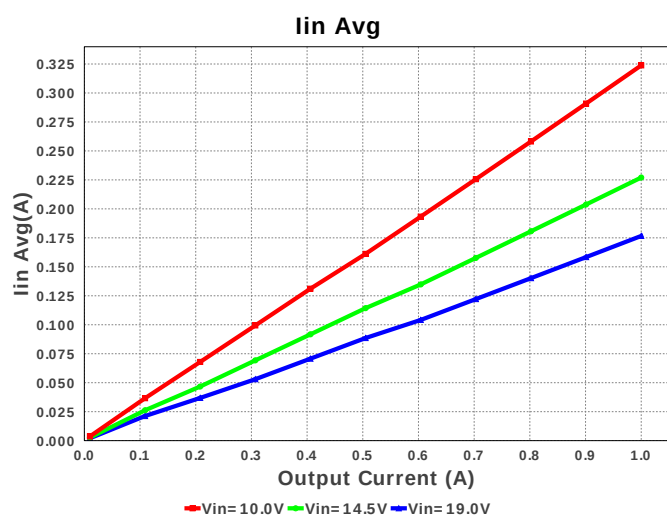
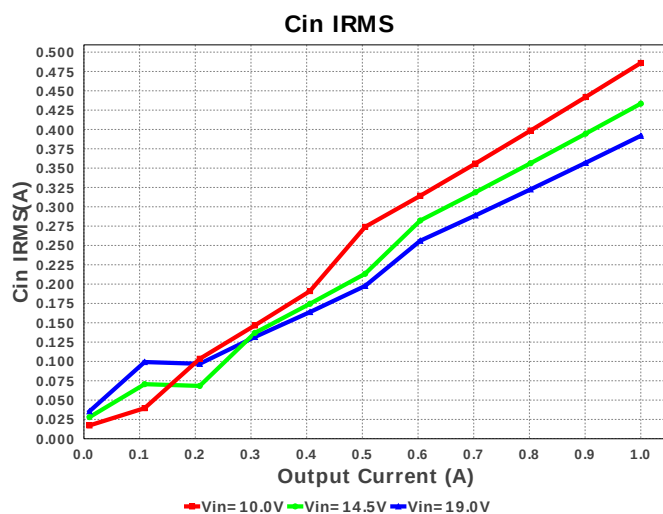
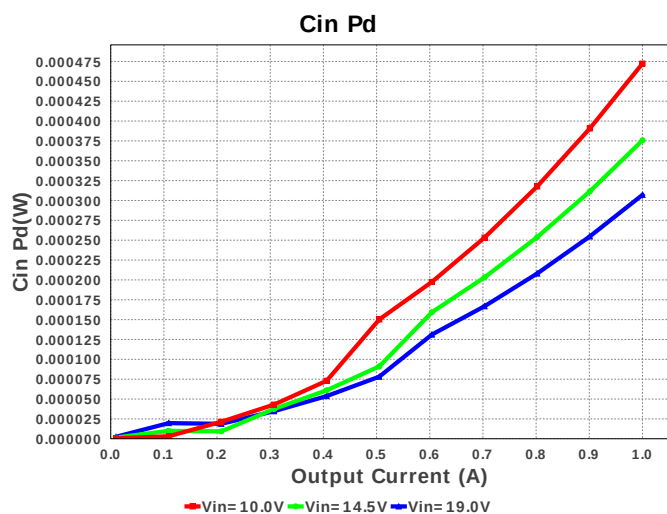
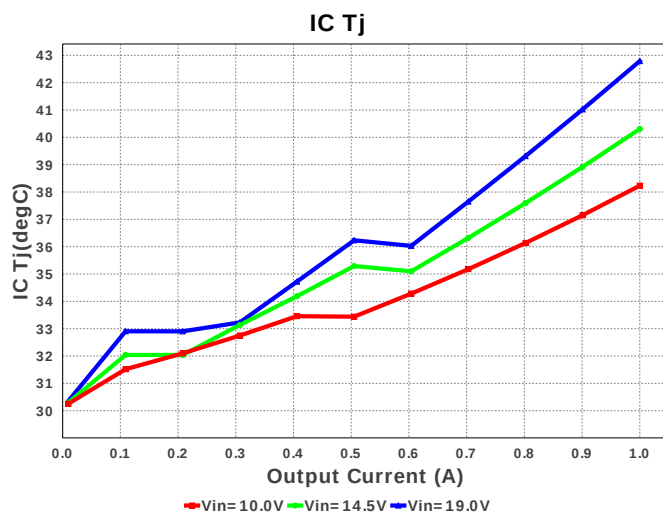
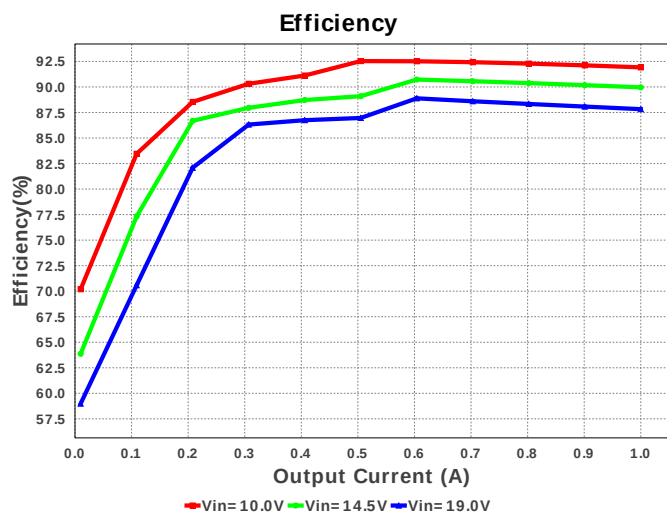
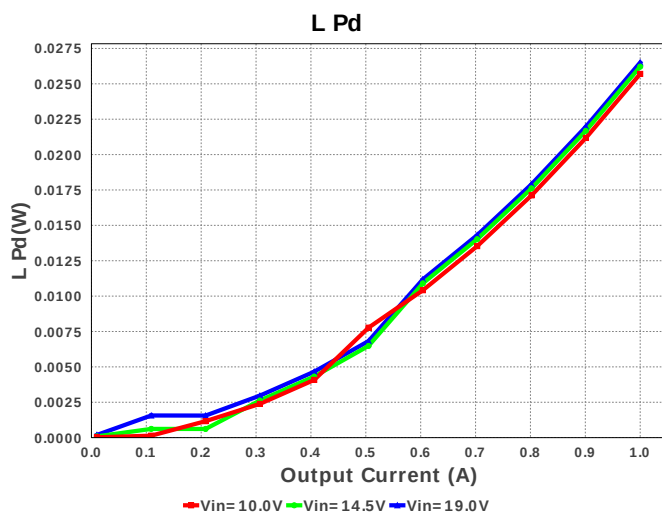
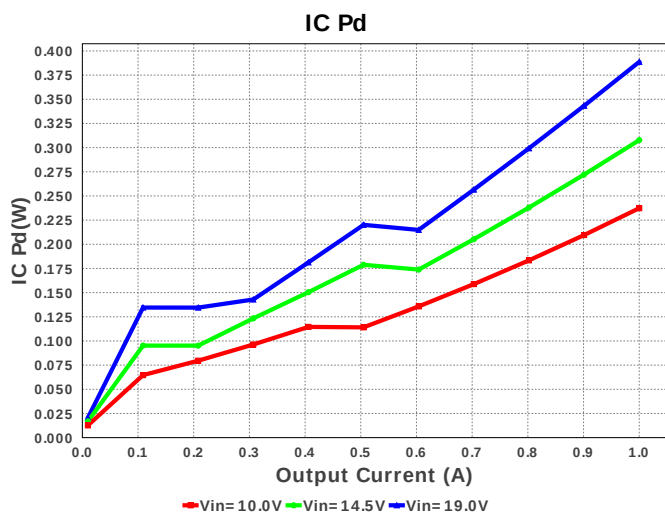
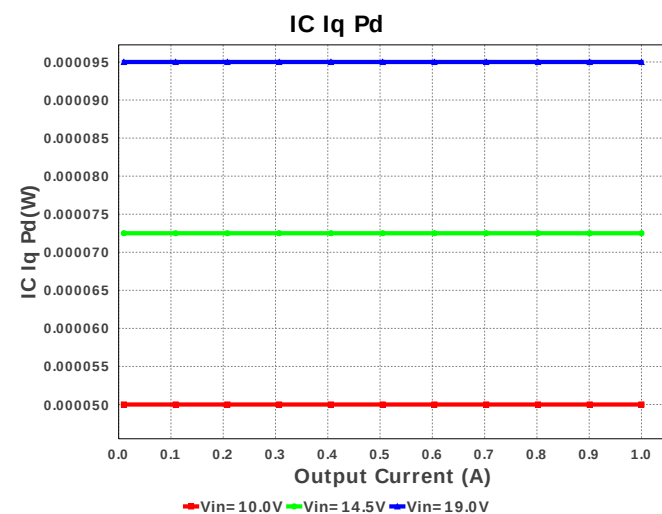
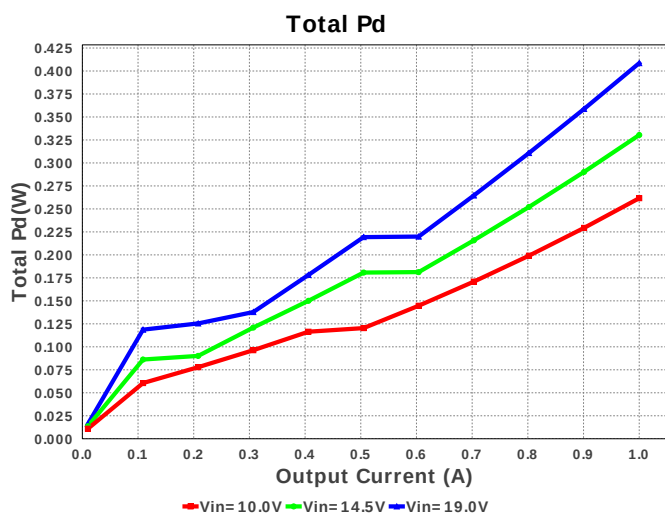
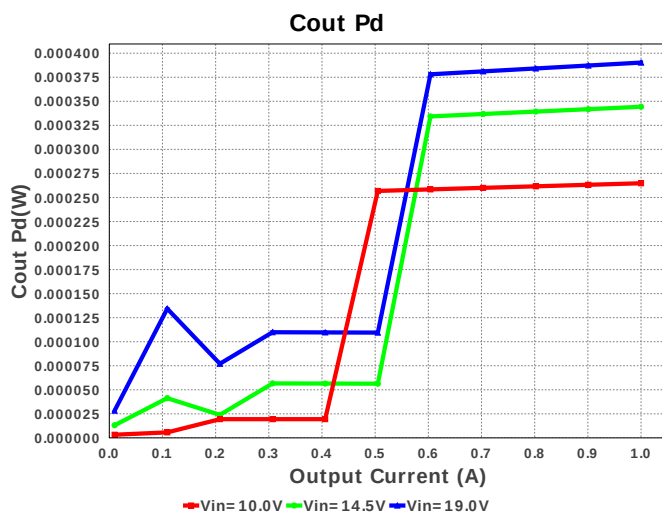
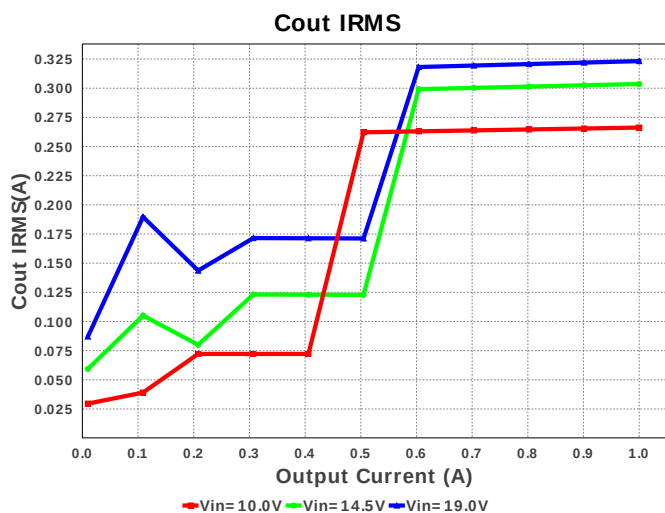


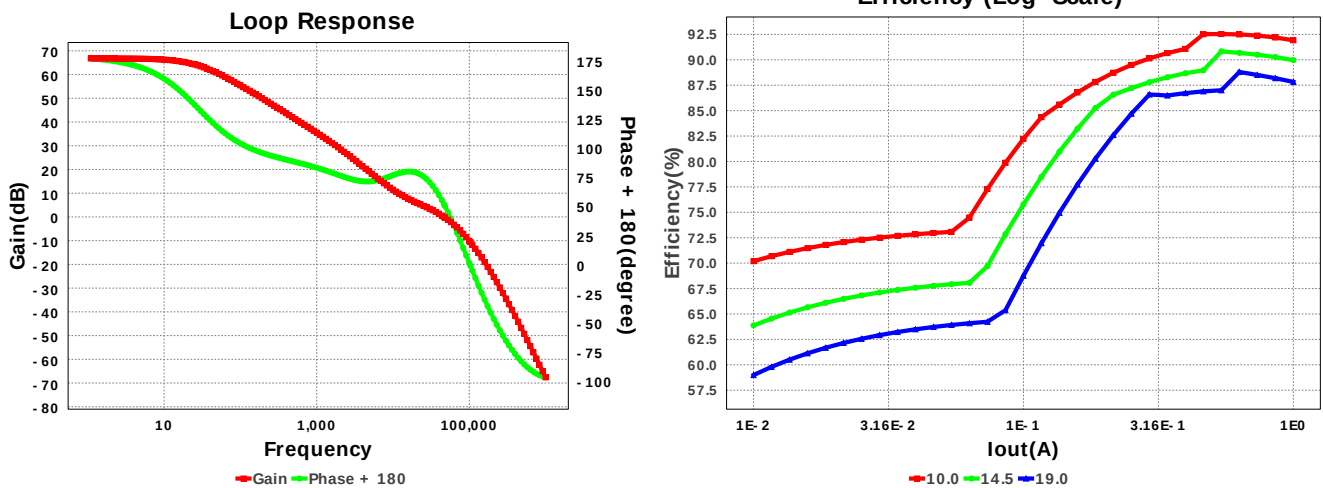


#	Name	Manufacturer	Part Number	Properties	Qty	Price	Footprint
10.	U1	Texas Instruments	LM43603PWPR	Switcher	1	\$1.85	 PWP0016F 59 mm ²









Operating Values

#	Name	Value	Category	Description
1.	Cin IRMS	391.821 mA	Current	Input capacitor RMS ripple current
2.	Cout IRMS	323.243 mA	Current	Output capacitor RMS ripple current
3.	Iin Avg	176.63 mA	Current	Average input current
4.	L Ipp	1.12 A	Current	Peak-to-peak inductor ripple current
5.	BOM Count	10	General	Total Design BOM count
6.	FootPrint	210.0 mm ²	General	Total Foot Print Area of BOM components
7.	Frequency	500.0 kHz	General	Switching frequency
8.	Pout	3.0 W	General	Total output power
9.	Total BOM	\$2.43	General	Total BOM Cost
10.	Low Freq Gain	66.787 dB	Op_Point	Gain at 10Hz
11.	Vout Actual	2.993 V	Op_Point	Vout Actual calculated based on selected voltage divider resistors
12.	Vout OP	3.0 V	Op_Point	Operational Output Voltage
13.	Cross Freq	46.562 kHz	Op_point	Bode plot crossover frequency
14.	Duty Cycle	16.308 %	Op_point	Duty cycle
15.	Efficiency	87.826 %	Op_point	Steady state efficiency
16.	Gain Marg	-10.622 dB	Op_point	Bode Plot Gain Margin
17.	IC Tj	42.79 degC	Op_point	IC junction temperature
18.	ICThetaJA	38.9 degC/W	Op_point	IC junction-to-ambient thermal resistance
19.	IOUT_OP	1.0 A	Op_point	Iout operating point
20.	Phase Marg	52.689 deg	Op_point	Bode Plot Phase Margin
21.	VIN_OP	19.0 V	Op_point	Vin operating point
22.	Vout p-p	8.004 mV	Op_point	Peak-to-peak output ripple voltage
23.	Cin Pd	307.048 μW	Power	Input capacitor power dissipation
24.	Cout Pd	390.255 μW	Power	Output capacitor power dissipation
25.	IC Iq Pd	95.0 μW	Power	IC Iq Pd
26.	IC Pd	388.641 mW	Power	IC power dissipation
27.	L Pd	26.508 mW	Power	Inductor power dissipation
28.	Total Pd	408.556 mW	Power	Total Power Dissipation
29.	Vout Tolerance	2.34 %		Vout Tolerance based on IC Tolerance (no load) and voltage divider resistors if applicable

Design Inputs

#	Name	Value	Description
1.	Iout	1.0	Maximum Output Current
2.	VinMax	19.0	Maximum input voltage
3.	VinMin	10.0	Minimum input voltage
4.	Vout	3.0	Output Voltage
5.	base_pn	LM43603	Texas Instruments Base Part Number
6.	source	DC	Input Source Type
7.	ta	30.0	Ambient temperature

Design Assistance

1. LM43603 Product Folder : <http://www.ti.com/product/LM43603> : contains the data sheet and other resources.

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