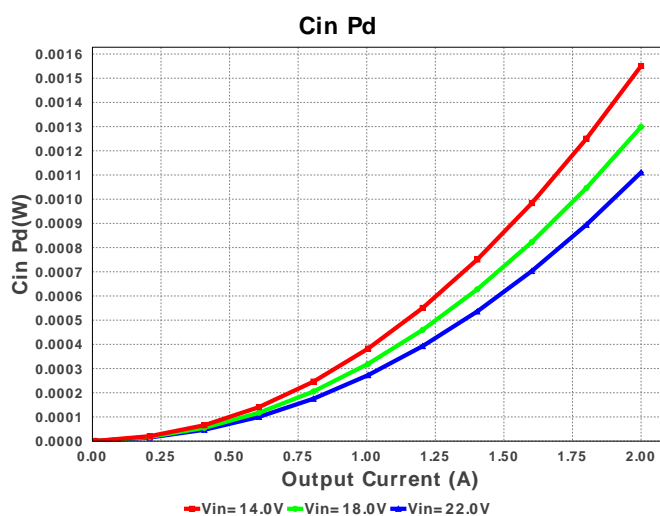
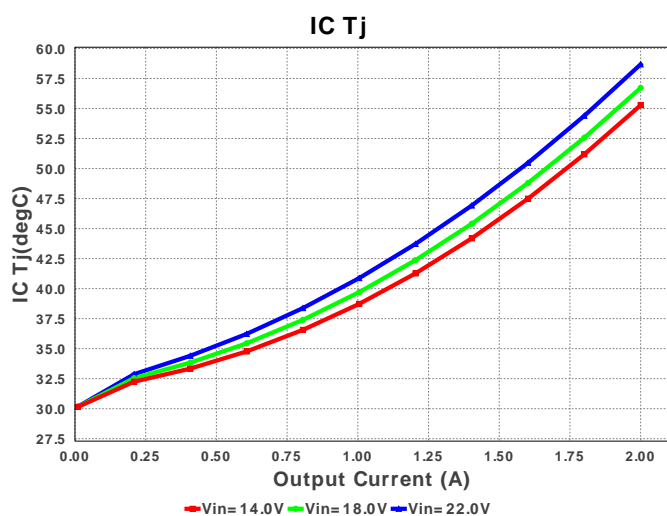
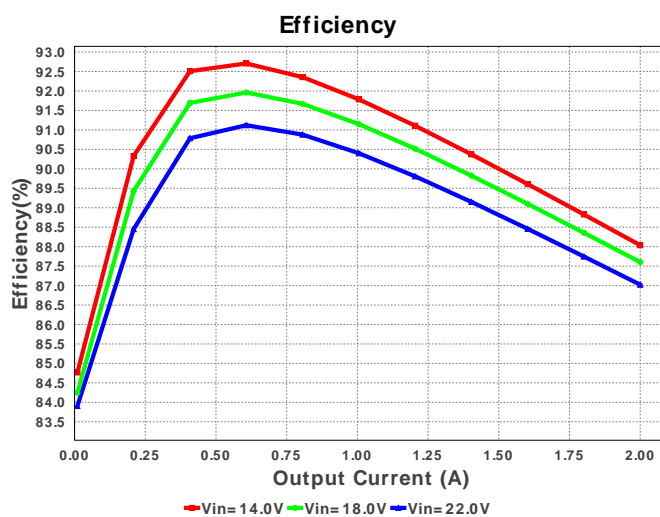
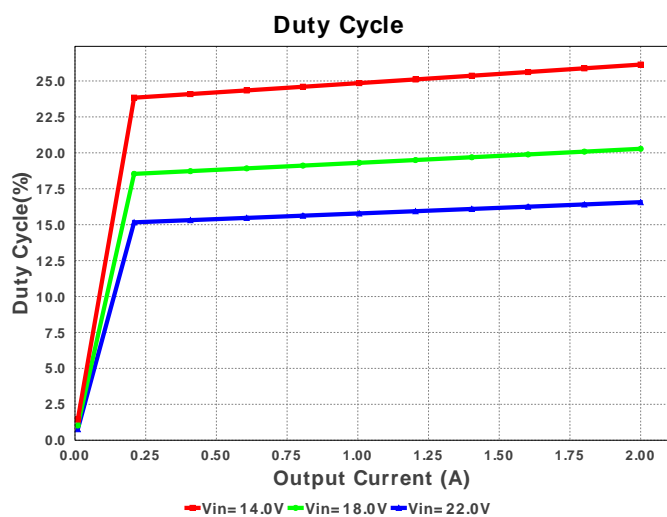
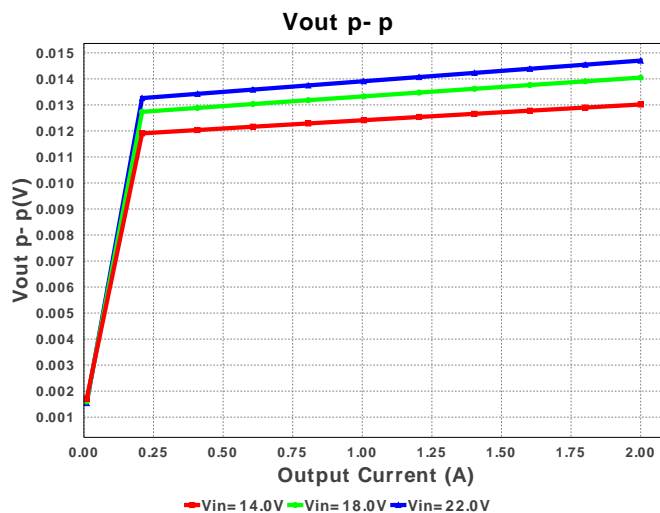
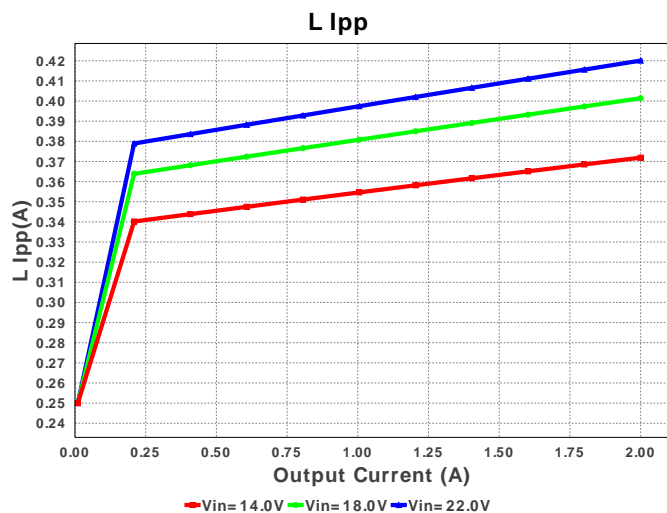
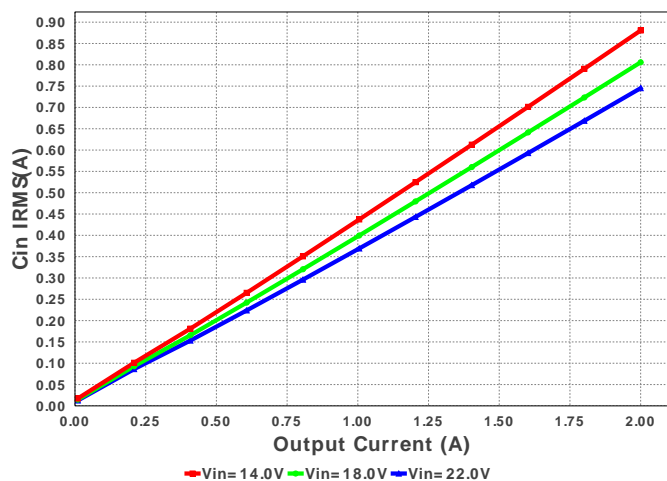


Device = LM43602PWPR
Topology = Buck
Created = 3/4/15 2:13:22 AM
BOM Cost = \$2.89
Footprint = 229.0 mm²
BOM Count = 11
Total Pd = 0.98W

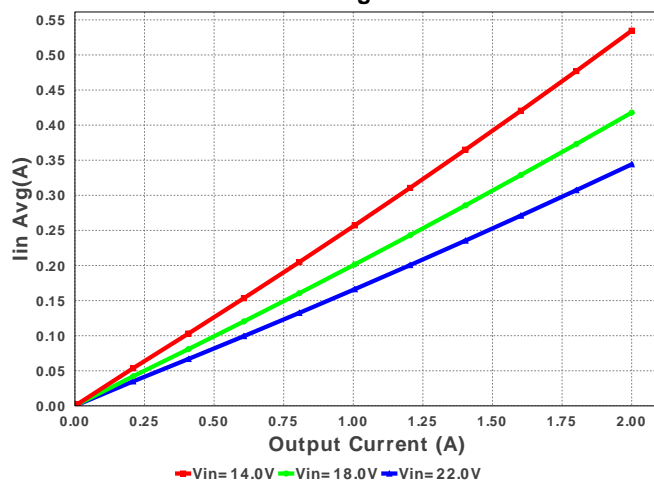
#	Name	Manufacturer	Part Number	Properties	Qty	Price	Footprint
10.	Rfbt	Vishay-Dale	CRCW04021M00FKED Series= CRCW..e3	Res= 1000.0 kOhm Power= 63.0 mW Tolerance= 1.0%	1	\$0.01	0402 3 mm ²
11.	U1	Texas Instruments	LM43602PWPR	Switcher	1	\$1.75	PWP0016F 42 mm ²



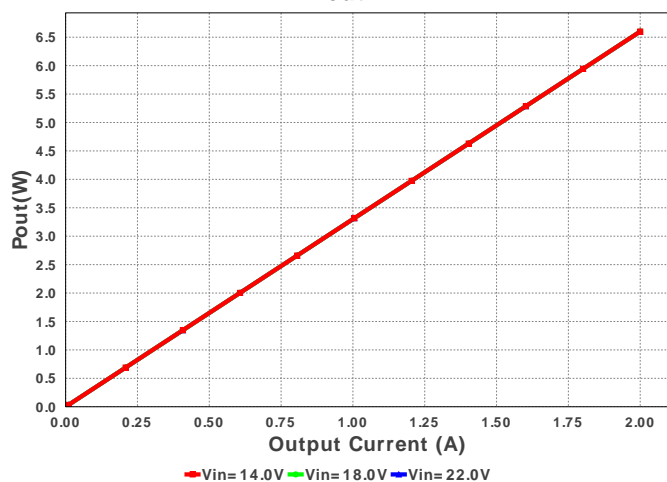
Cin IRMS



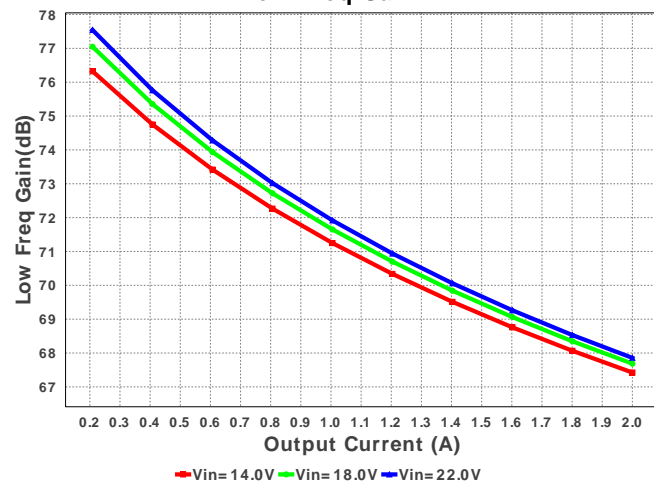
Iin Avg



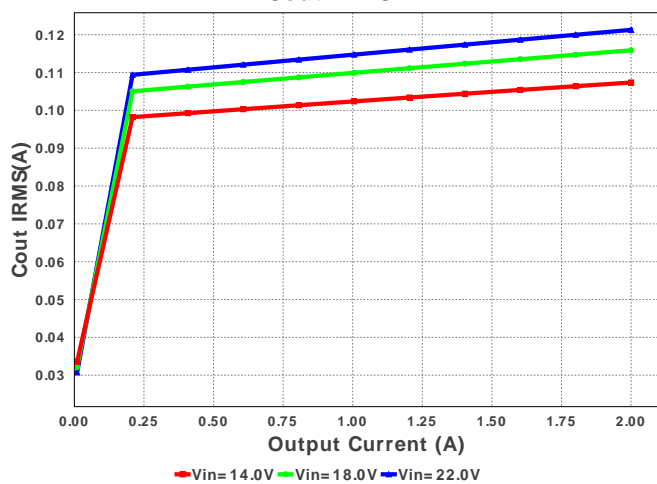
Pout



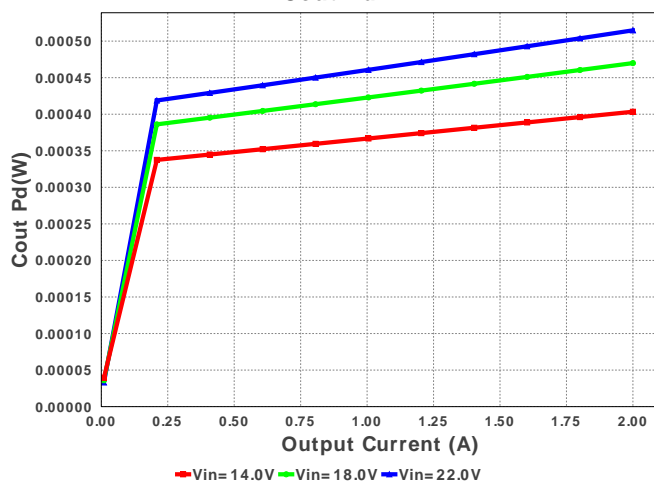
Low Freq Gain

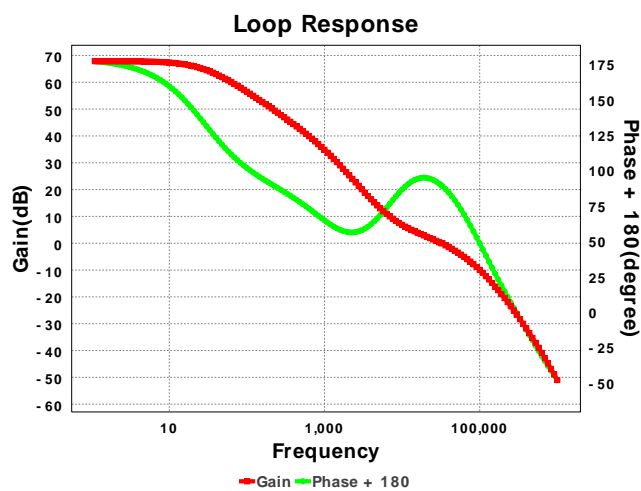
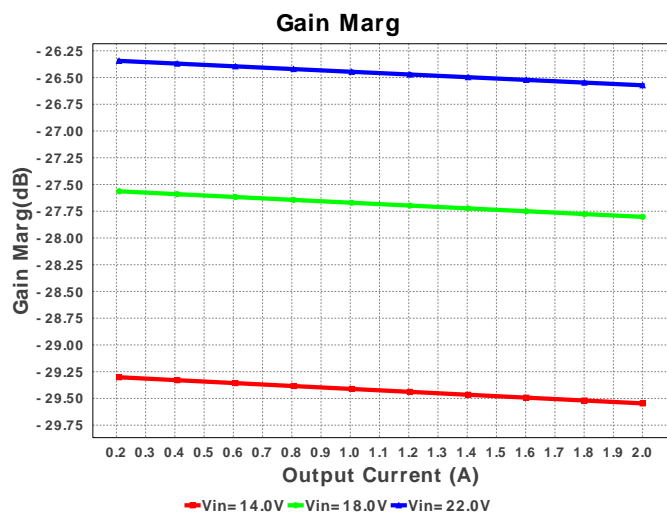
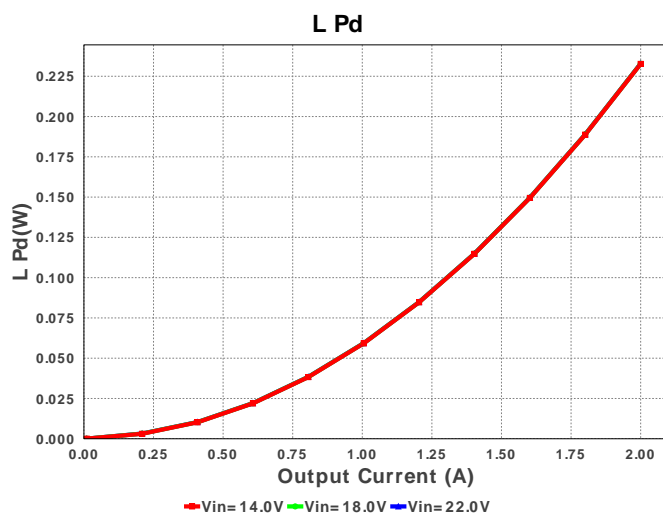
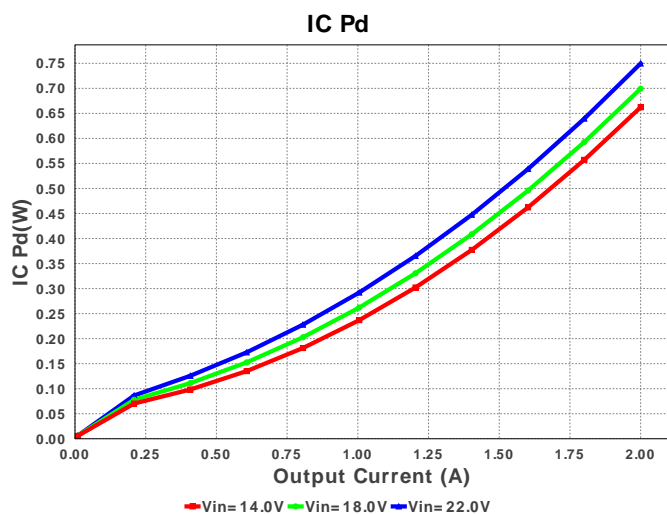
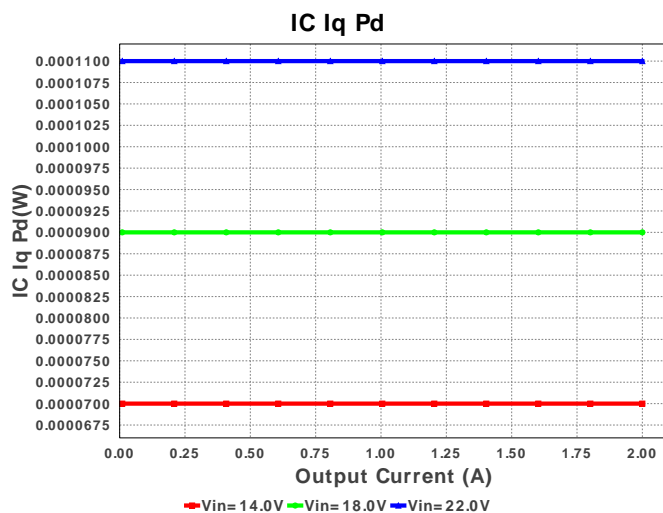
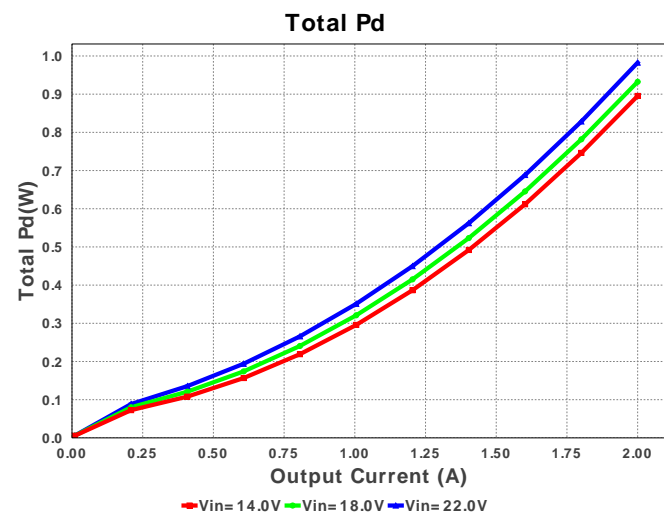


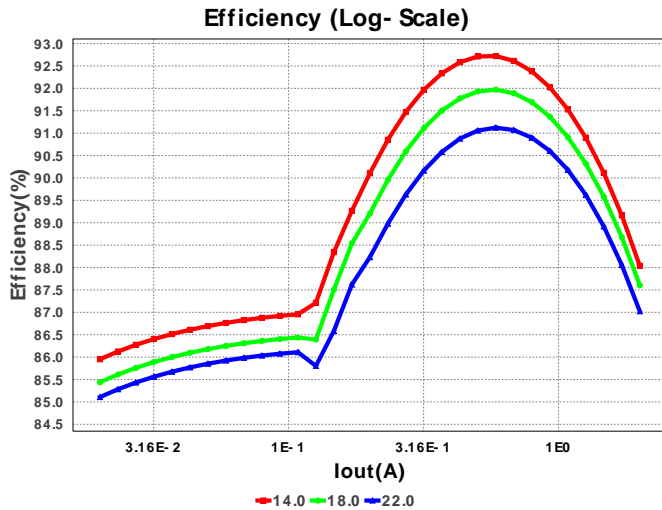
Cout IRMS



Cout Pd







Operating Values

#	Name	Value	Category	Description
1.	Cin IRMS	745.187 mA	Current	Input capacitor RMS ripple current
2.	Cout IRMS	121.271 mA	Current	Output capacitor RMS ripple current
3.	Iin Avg	344.17 mA	Current	Average input current
4.	L Ipp	420.1 mA	Current	Peak-to-peak inductor ripple current
5.	BOM Count	11	General	Total Design BOM count
6.	FootPrint	229.0 mm ²	General	Total Foot Print Area of BOM components
7.	Frequency	500.0 kHz	General	Switching frequency
8.	Pout	6.6 W	General	Total output power
9.	Total BOM	\$2.89	General	Total BOM Cost
10.	Vout OP	3.3 V	Op_Point	Operational Output Voltage
11.	Cross Freq	31.886 kHz	Op_point	Bode plot crossover frequency
12.	Duty Cycle	16.566 %	Op_point	Duty cycle
13.	Efficiency	87.023 %	Op_point	Steady state efficiency
14.	Gain Marg	-26.572 dB	Op_point	Bode Plot Gain Margin
15.	IC Tj	58.675 degC	Op_point	IC junction temperature
16.	ICThetaJA	38.9 degC/W	Op_point	IC junction-to-ambient thermal resistance
17.	IOUT_OP	2.0 A	Op_point	Iout operating point
18.	Phase Marg	90.255 deg	Op_point	Bode Plot Phase Margin
19.	VIN_OP	22.0 V	Op_point	Vin operating point
20.	Vout p-p	14.703 mV	Op_point	Peak-to-peak output ripple voltage
21.	Cin Pd	1.111 mW	Power	Input capacitor power dissipation
22.	Cout Pd	514.734 μW	Power	Output capacitor power dissipation
23.	IC Iq Pd	110.0 μW	Power	IC Iq Pd
24.	IC Pd	749.697 mW	Power	IC power dissipation
25.	L Pd	232.853 mW	Power	Inductor power dissipation
26.	Total Pd	982.585 mW	Power	Total Power Dissipation
27.	Low Freq Gain	67.857 dB	Unknown	Gain at 10Hz

Design Inputs

#	Name	Value	Description
1.	Iout	2.0	Maximum Output Current
2.	Iout1	2.0	Output Current #1
3.	VinMax	22.0	Maximum input voltage
4.	VinMin	14.0	Minimum input voltage
5.	Vout	3.3	Output Voltage
6.	Vout1	3.3	Output Voltage #1
7.	base_pn	LM43602	Texas Instruments Base Part Number
8.	source	DC	Input Source Type
9.	ta	30.0	Ambient temperature

Design Assistance

1. LM43602 Product Folder : <http://www.ti.com/product/lm43602> : contains the data sheet and other resources.

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