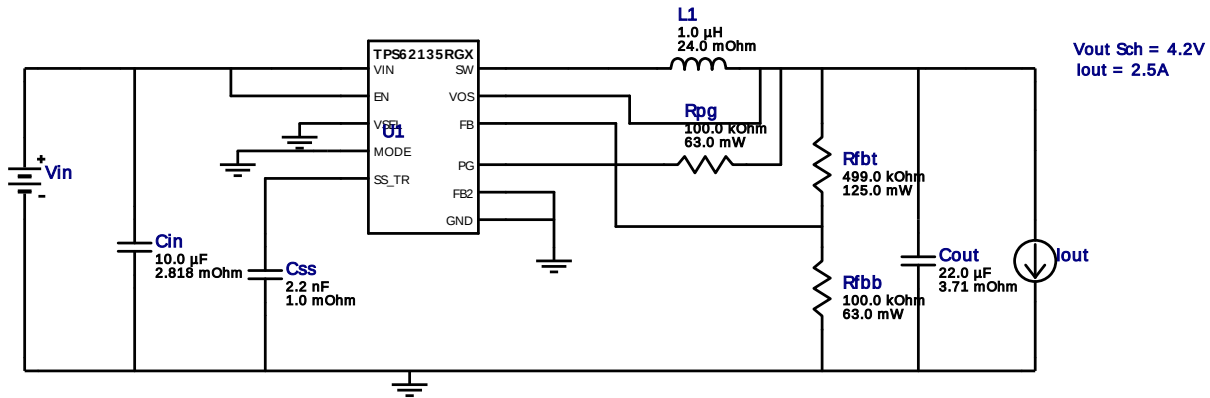


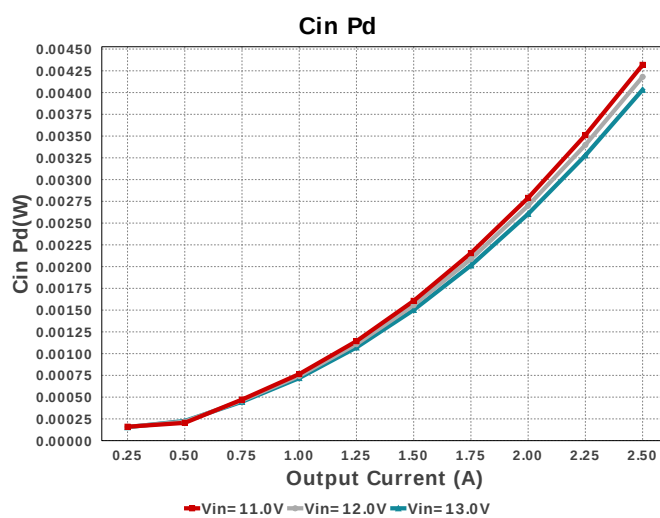
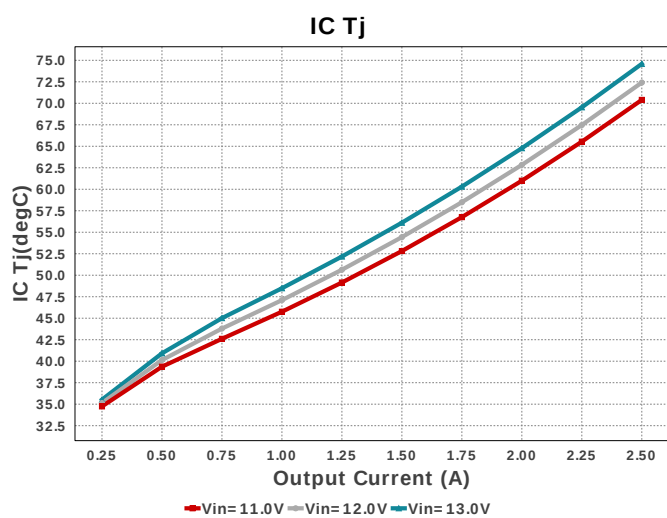
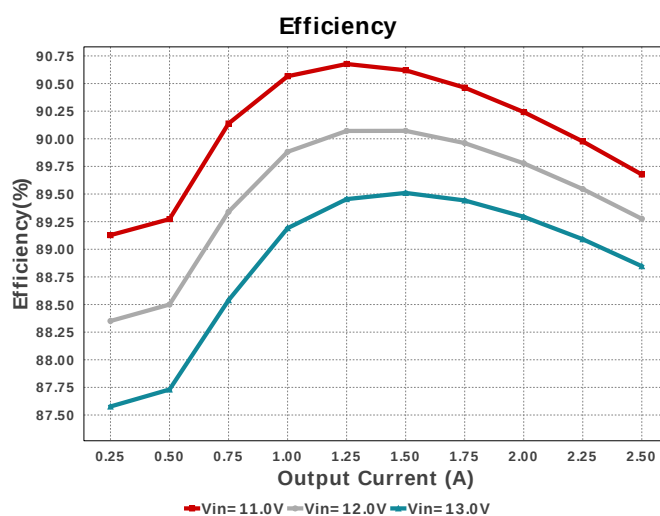
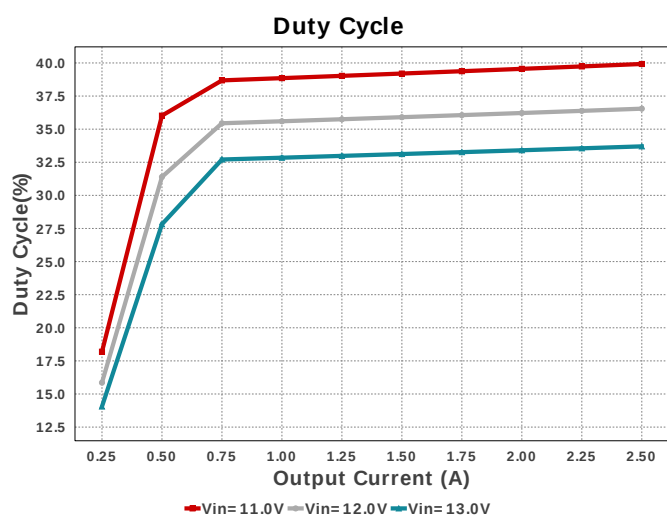
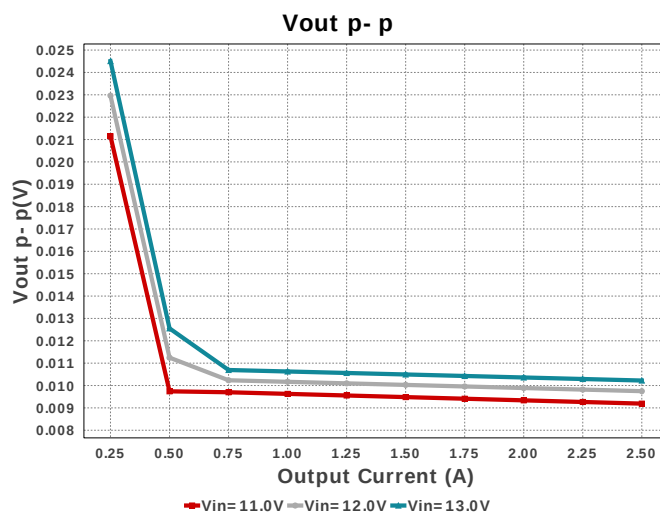
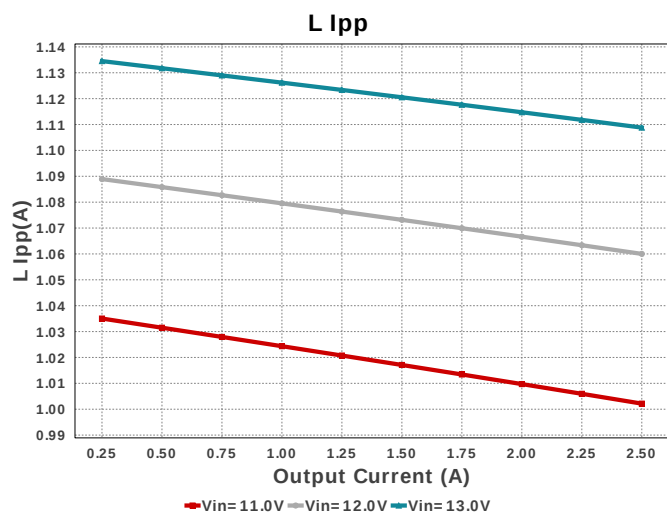


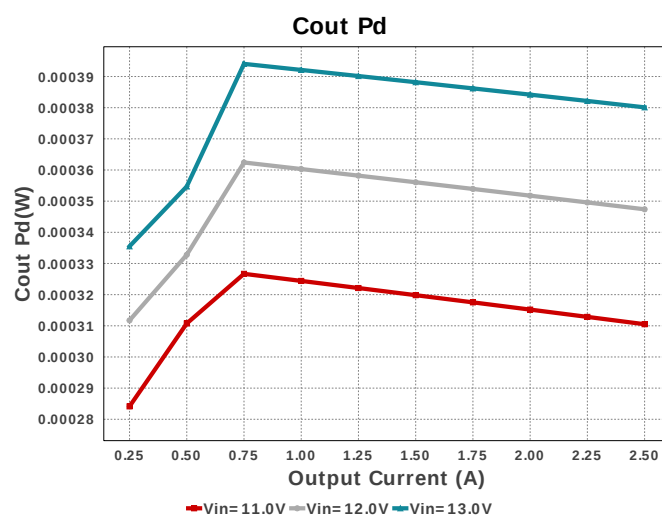
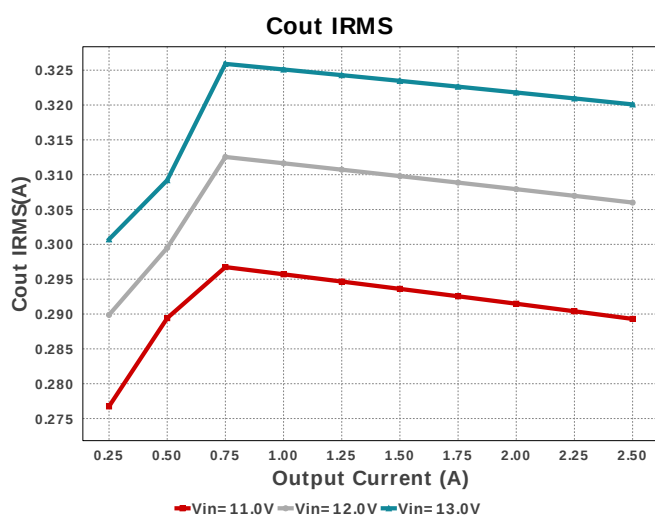
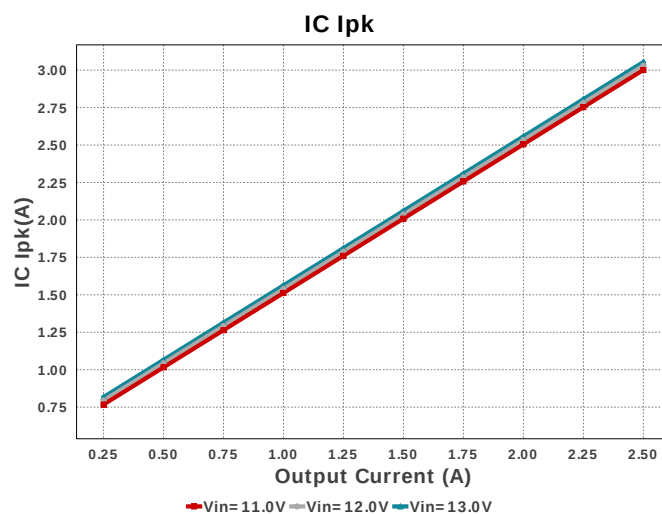
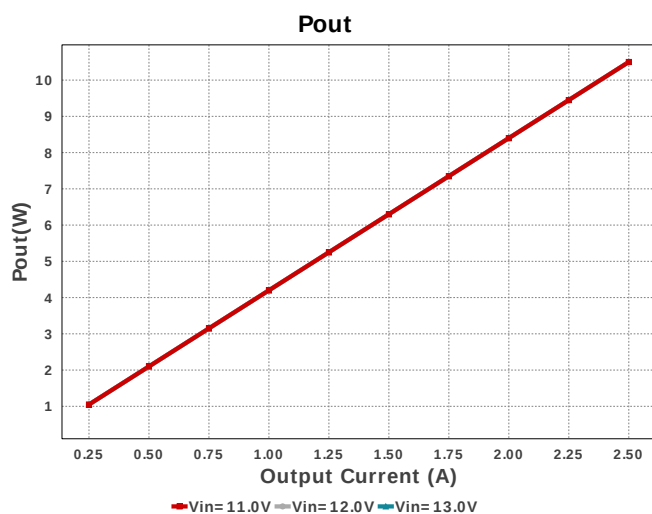
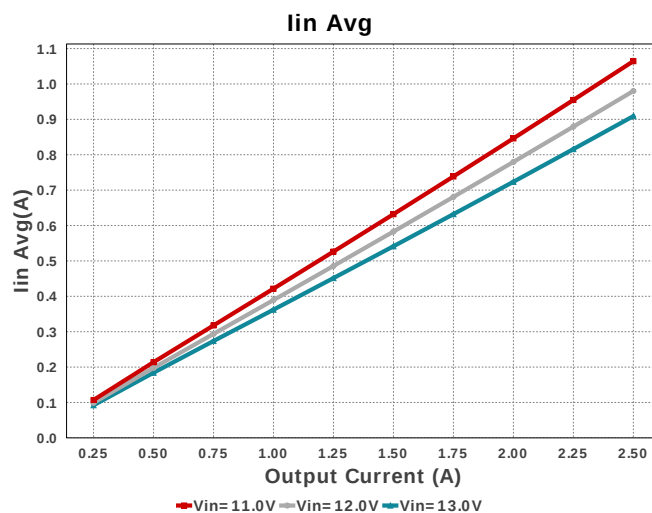
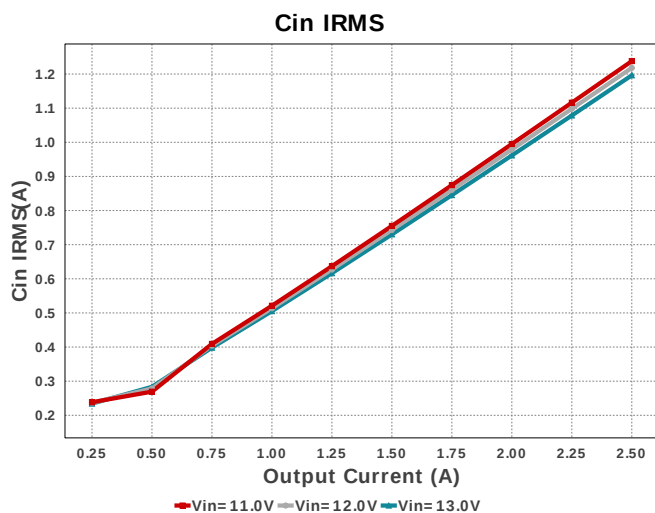
My Comments

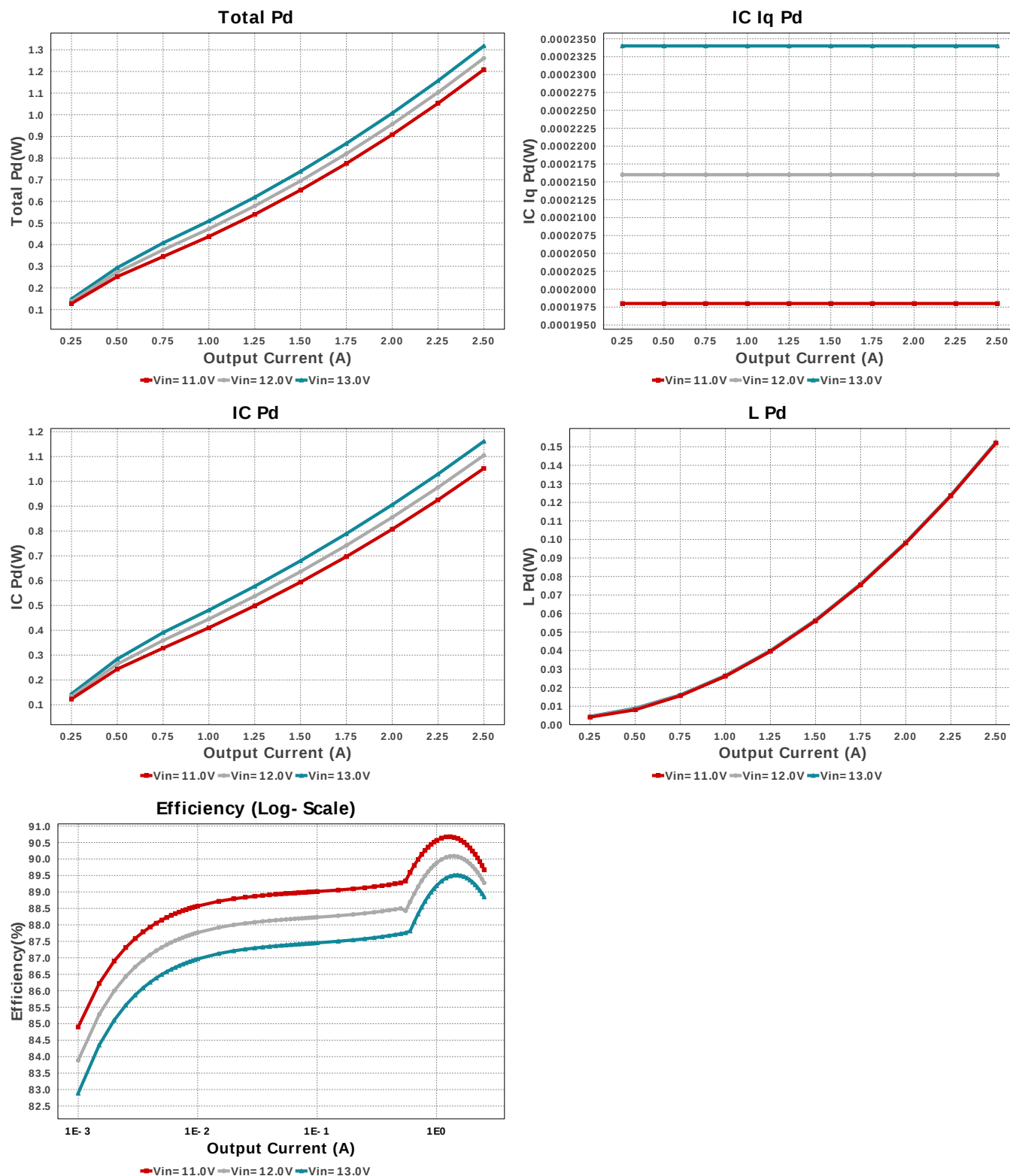
No comments

Electrical BOM

#	Name	Manufacturer	Part Number	Properties	Qty	Price	Footprint
1.	Cin	TDK	C2012X5R1V106K085AC Series= X5R	Cap= 10.0 uF ESR= 2.818 mOhm VDC= 35.0 V IRMS= 3.8868 A	1	\$0.19	0805 7 mm ²
2.	Cout	TDK	C1608X5R1A226M080AC Series= X5R	Cap= 22.0 uF ESR= 3.71 mOhm VDC= 10.0 V IRMS= 2.69936 A	1	\$0.13	0603 5 mm ²
3.	Css	MuRata	GRM033R71A222KA01D Series= X7R	Cap= 2.2 nF ESR= 1.0 mOhm VDC= 10.0 V IRMS= 0.0 A	1	\$0.01	0201 2 mm ²
4.	L1	Vishay-Dale	IHLP1212BZER1R0M11	L= 1.0 uH DCR= 24.0 mOhm	1	\$0.56	IHLP-1212BZ 19 mm ²
5.	Rfbb	Vishay-Dale	CRCW0402100KFKED Series= CRCW..e3	Res= 100.0 kOhm Power= 63.0 mW Tolerance= 1.0%	1	\$0.01	0402 3 mm ²
6.	Rfbb	Panasonic	ERJ-6ENF4993V Series= ERJ-6E	Res= 499.0 kOhm Power= 125.0 mW Tolerance= 1.0%	1	\$0.01	0805 7 mm ²
7.	Rpg	Vishay-Dale	CRCW0402100KFKED Series= CRCW..e3	Res= 100.0 kOhm Power= 63.0 mW Tolerance= 1.0%	1	\$0.01	0402 3 mm ²
8.	U1	Texas Instruments	TPS62135RGXR	Switcher	1	\$0.88	RGX0011A 12 mm ²







#	Name	Value	Category	Description
12.	Duty Cycle	33.701 %	Op Point	Duty cycle
13.	Efficiency	88.847 %	Op Point	Steady state efficiency
14.	IC Tj	74.586 degC	Op Point	IC junction temperature
15.	ICThetaJA	38.4 degC/W	Op Point	IC junction-to-ambient thermal resistance
16.	IOUT_OP	2.5 A	Op Point	Iout operating point
17.	VIN_OP	13.0 V	Op Point	Vin operating point
18.	Vout Actual	4.193 V	Op Point	Vout Actual calculated based on selected voltage divider resistors
19.	Vout OP	4.2 V	Op Point	Operational Output Voltage
20.	Vout Sch	4.2 V	Op Point	Output voltage selected
21.	Vout Tolerance	2.845 %	Op Point	Vout Tolerance based on IC Tolerance (no load) and voltage divider resistors if applicable
22.	Vout p-p	10.223 mV	Op Point	Peak-to-peak output ripple voltage
23.	Cin Pd	4.033 mW	Power	Input capacitor power dissipation
24.	Cout Pd	380.108 µW	Power	Output capacitor power dissipation
25.	IC Iq Pd	234.0 µW	Power	IC Iq Pd
26.	IC Pd	1.161 W	Power	IC power dissipation
27.	L Pd	152.459 mW	Power	Inductor power dissipation
28.	Total Pd	1.318 W	Power	Total Power Dissipation

Design Inputs

#	Name	Value	Description
1.	Iout	2.5	Maximum Output Current
2.	VinMax	13.0	Maximum input voltage
3.	VinMin	11.0	Minimum input voltage
4.	Vout	4.2	Output Voltage
5.	base_pn	TPS62135	Base Product Number
6.	source	DC	Input Source Type
7.	Ta	30.0	Ambient temperature
1.	Vout Sch	4.2	Output voltage selected

Design Assistance

1. **TPS62135** Product Folder : <http://www.ti.com/product/tps62135> : contains the data sheet and other resources.

Important Notice and Disclaimer

TI provides technical and reliability data (including datasheets), design resources (including reference designs), application or other design advice, web tools, safety information, and other resources AS IS and with all faults, and disclaims all warranties. These resources are intended for skilled developers designing with TI products. You are solely responsible for (1) selecting the appropriate TI products for your application, (2) designing, validating and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, or other requirements.

These resources are subject to change without notice. TI grants you permission to use these resources only for development of an application that uses the TI products described in the resource. Other reproduction and display of these resources is prohibited. No license is granted to any other TI intellectual property right or to any third party intellectual property right. TI disclaims responsibility for, and you will fully indemnify TI and its representatives against, any claims, damages, costs, losses, and liabilities arising out of your use of these resources.

Providing these resources does not expand or otherwise alter TI's applicable Terms of Sale or other applicable terms available either on ti.com or provided in conjunction with TI products.