Power for C5504/05

Texas Instruments

C5504/05 Power Spec Table

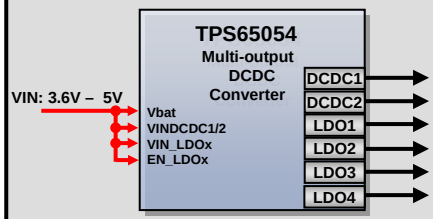
	Pin Name	Voltage (V)	Max Current [4] (mA)	Tolerance	Sequencing Order	Comments
	LDOI [3]	1.8 - 3.6	5		1[2]	Supplying **ANA LDO** (supplies VDDA_ANA and VDDA_PLL).
Core	CVDD[1], CVDDRTC[1]	1.05 / 1.30	500	-5%, +10%		Typical Core Power Consumption: - 0.22mW/MHz for 75% DMAC + 25% NOP (CVDD =1.3V @ 100MHz, Room Temp) - 0.14mW/MHz for 75% DMAC + 25% NOP (CVDD =1.05V @ 100MHz, Room Temp)
	USB_VDD1P3, USB_VDDA1P3	1.3V	70	-5%, +10%		For best performance, these voltages should be powered by a LDO in order to minimize noise.
	DVDDIO, DVDDRTC	1.8 / 2.5 / 2.8 / 3.3	300	-10%, +10%		
	DVDDEMIF	1.8 / 2.5 / 2.8 / 3.3	245	-10%, +10%		
	USB_VDDOSC, USB_VDDA3P3, USB_VDDPLL	3.3V	55	-5%, +5%		

NOTES:
1) CVDD & CVDDRTC can be 1.05Vor 1.30V for ≤60MHz operation and 1.30V for operating higher than 60MHz
2) **Power Supply Sequencing:** No sequencing is required (for further details, see section 5.3.1 of the data sheet)
3) If GPAIN pins are used as general purpose outputs, the internal ANA_LDO must not be used as the max current capability of ANA_LDO can be exceeded. In this case use an external regulator to supply VDDA_ANA..
4) This column shows the maximum design current of each power domain. See the C5505/04 data sheet for actual current consumptions of some usage cases. See the data in the “Comments” column above.

Power Options for C5504/05

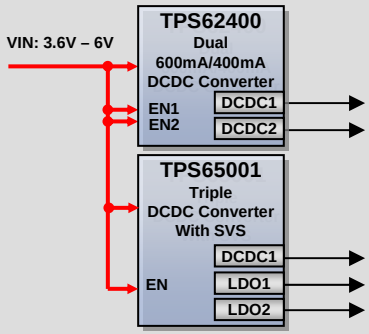
*Please visit ti.com/processorpower for COMPLETE power solutions

Highest Efficiency, Low Cost Integrated PMIC



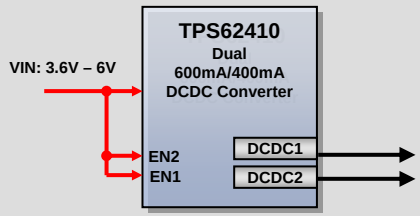
- 2 DCDC + 4 LDO's in 4x4mm QFN
- 2.25MHz for Small Inductors
- 180˚ Out-of-Phase Operation

High-Efficiency, Dual DCDC + PMIC



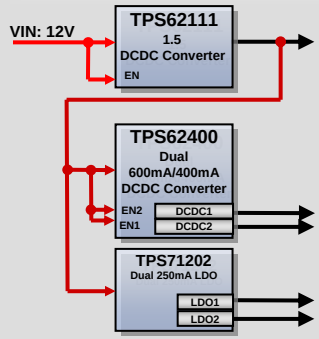
- Up to 95% Efficiency
- 2.25MHz for Small Inductors
- Integrated SVS

Lowest Cost, Dual DCDC @ 3.3V & 1.3V



- 3.6 – 6V input voltage
- Efficiency up to 95%
- 2.25MHz for Small Inductors

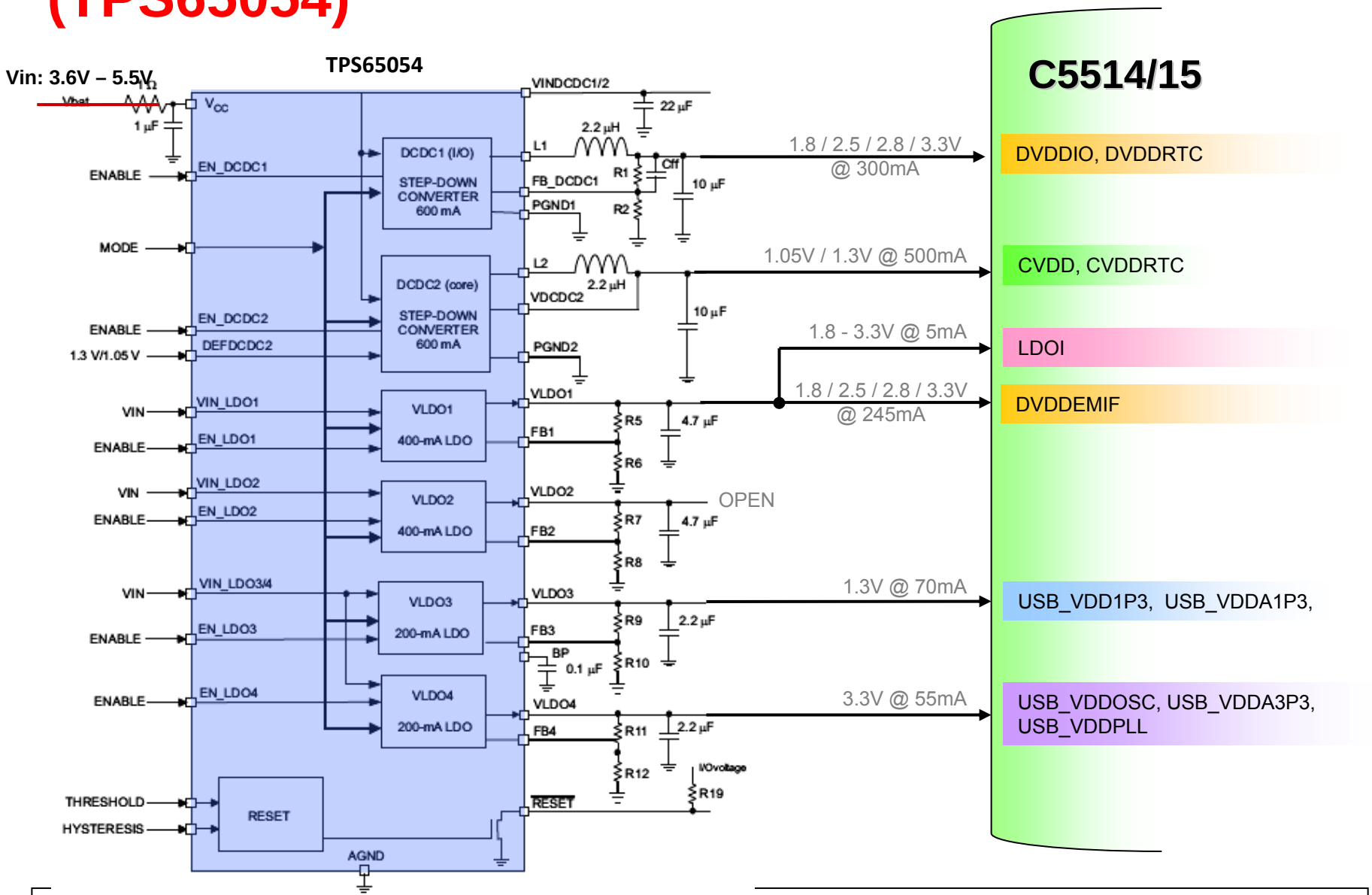
High Input Voltage, DCDC Converters



- Input voltage capable up to 17V
- PFM mode for high efficiency during light loads
- Low-Noise LDO (32uVrms)

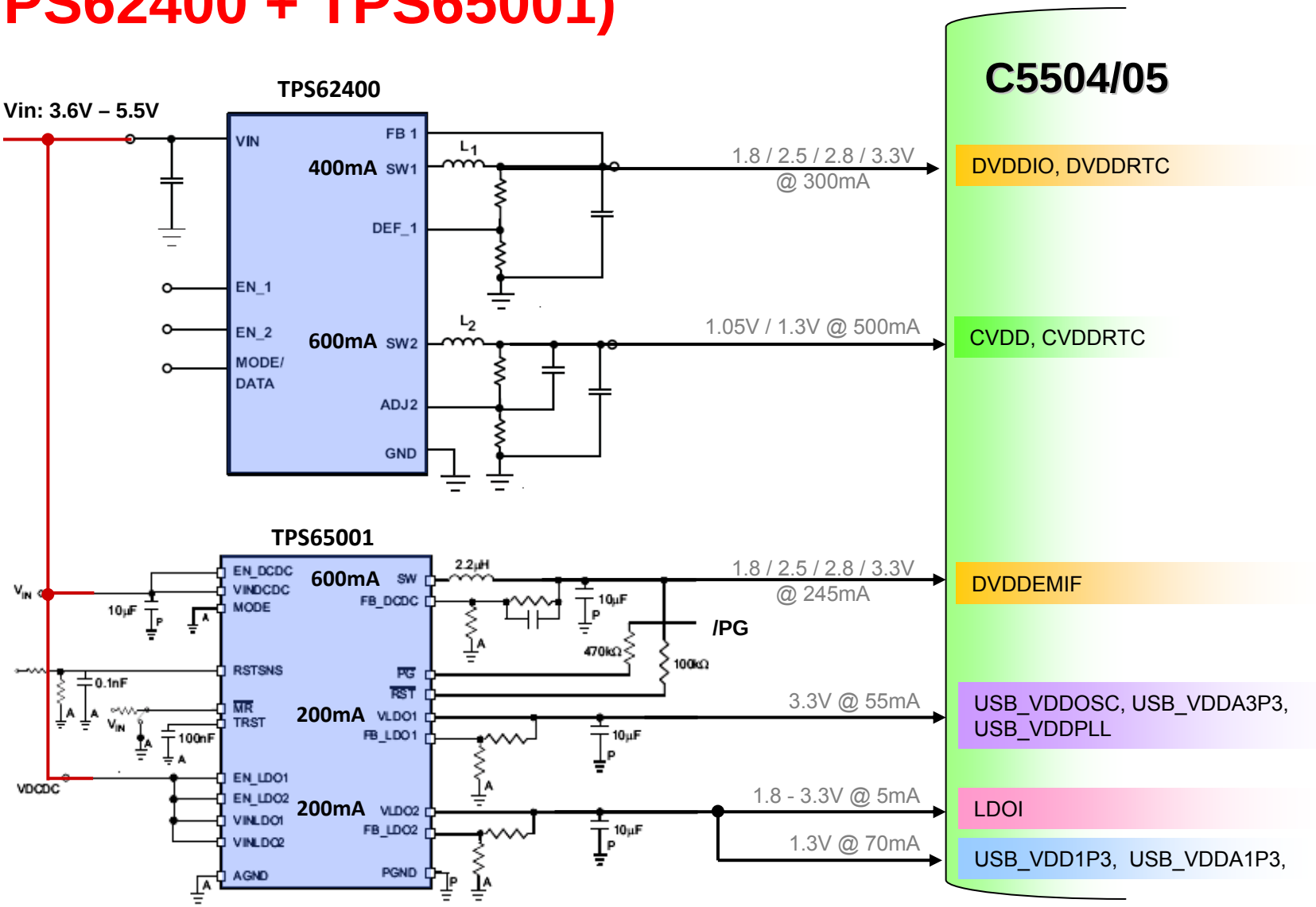
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Highest Efficiency, Single PMIC (TPS65054)



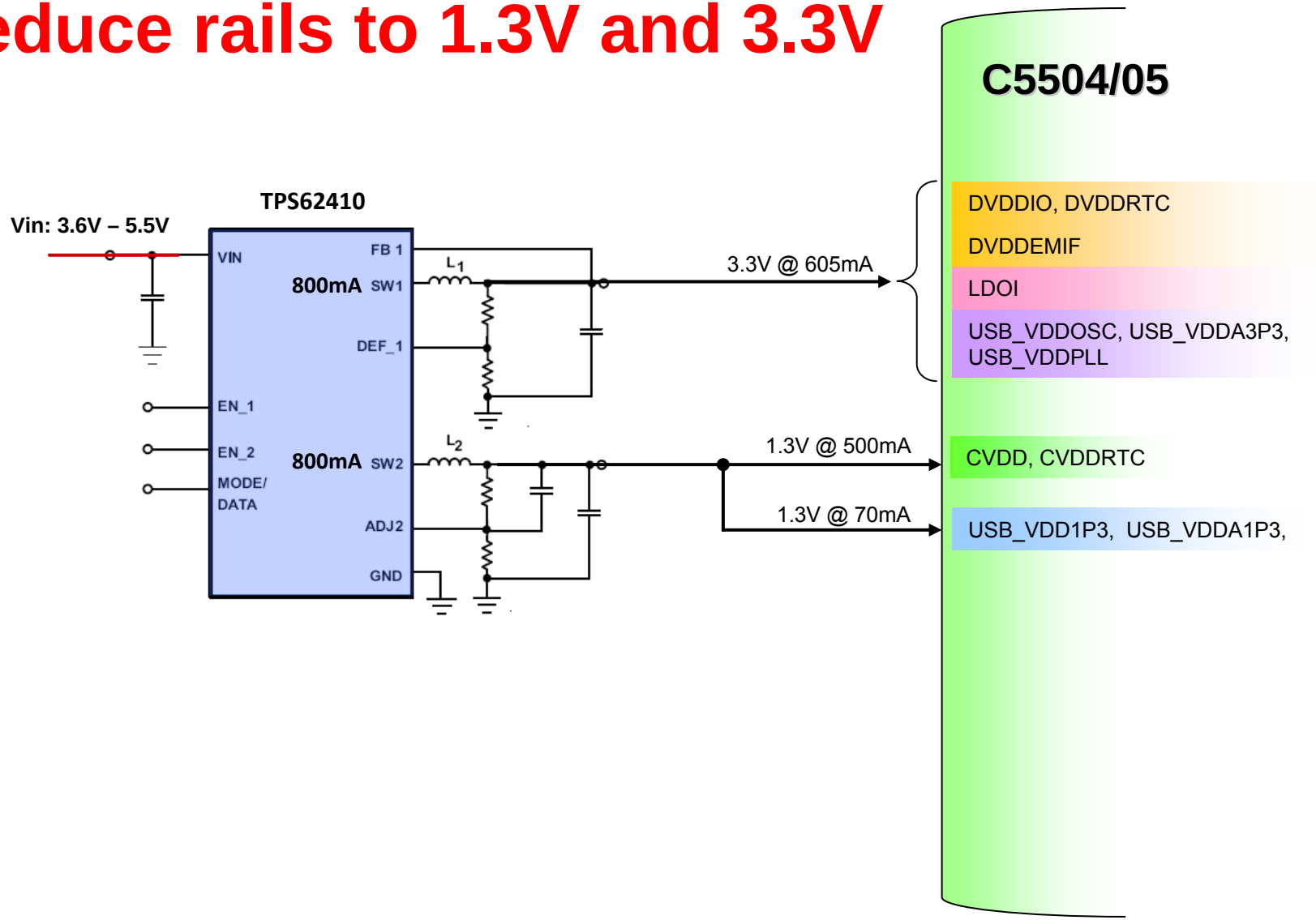
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High Efficiency, Low part count (TPS62400 + TPS65001)

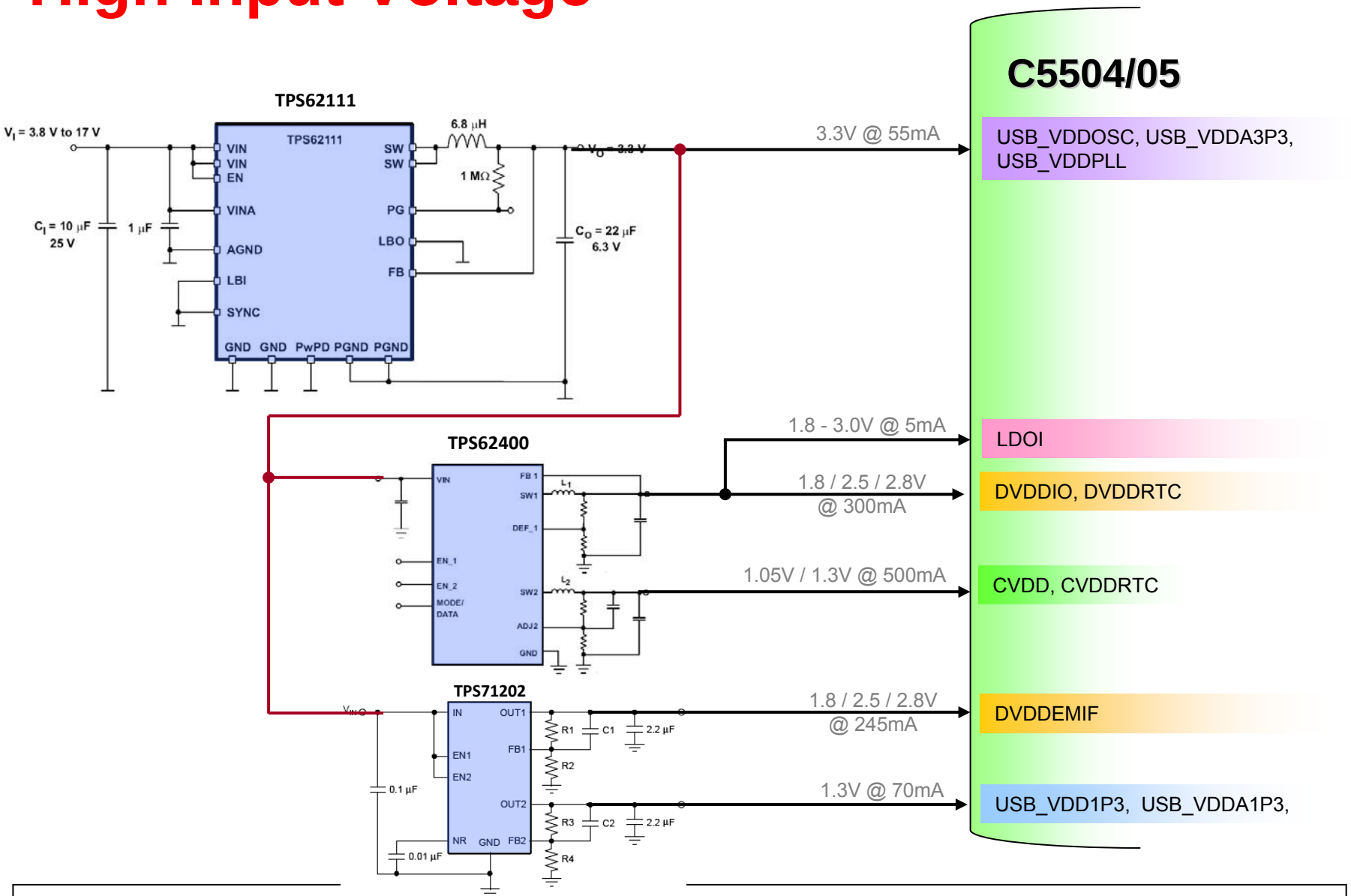


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High Efficiency, Lowest cost
Reduce rails to 1.3V and 3.3V



High Input Voltage



Note: If DVDDIO, DVDDRTC, DVDDEMIF, LDOI are 3.3V, connect directly to 3.3V

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