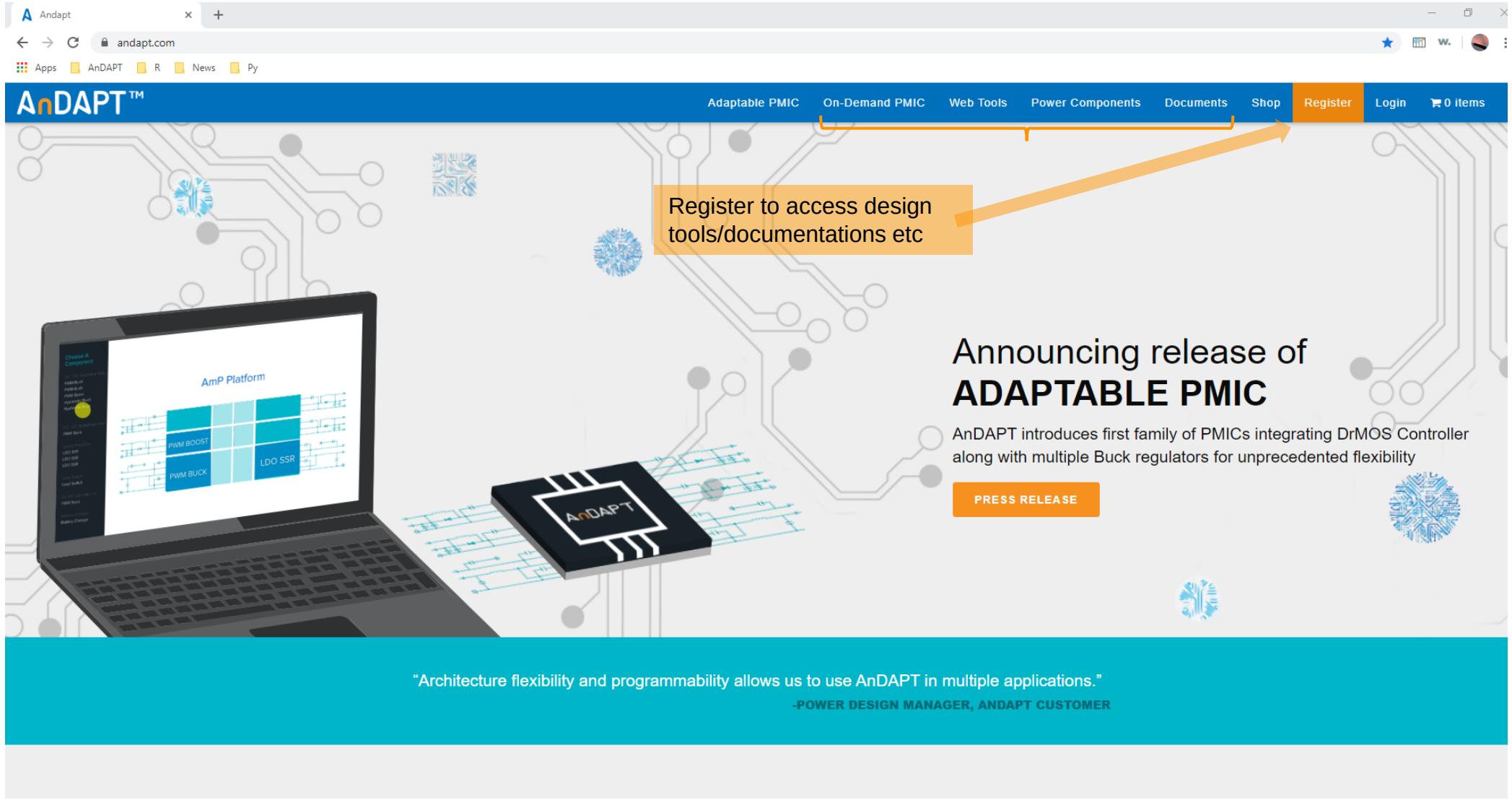
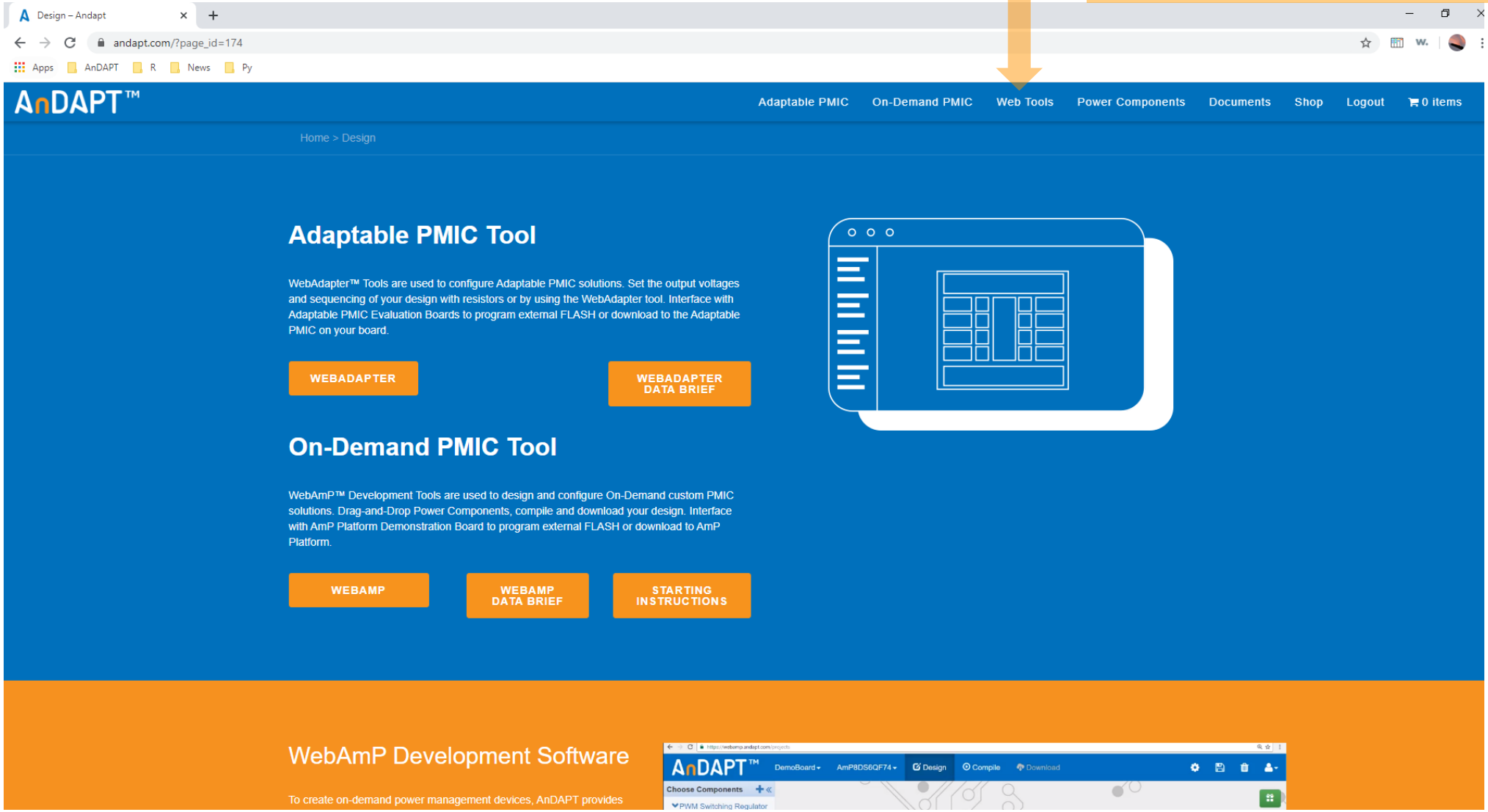
AnDAPT: Getting Started



AnDAPT

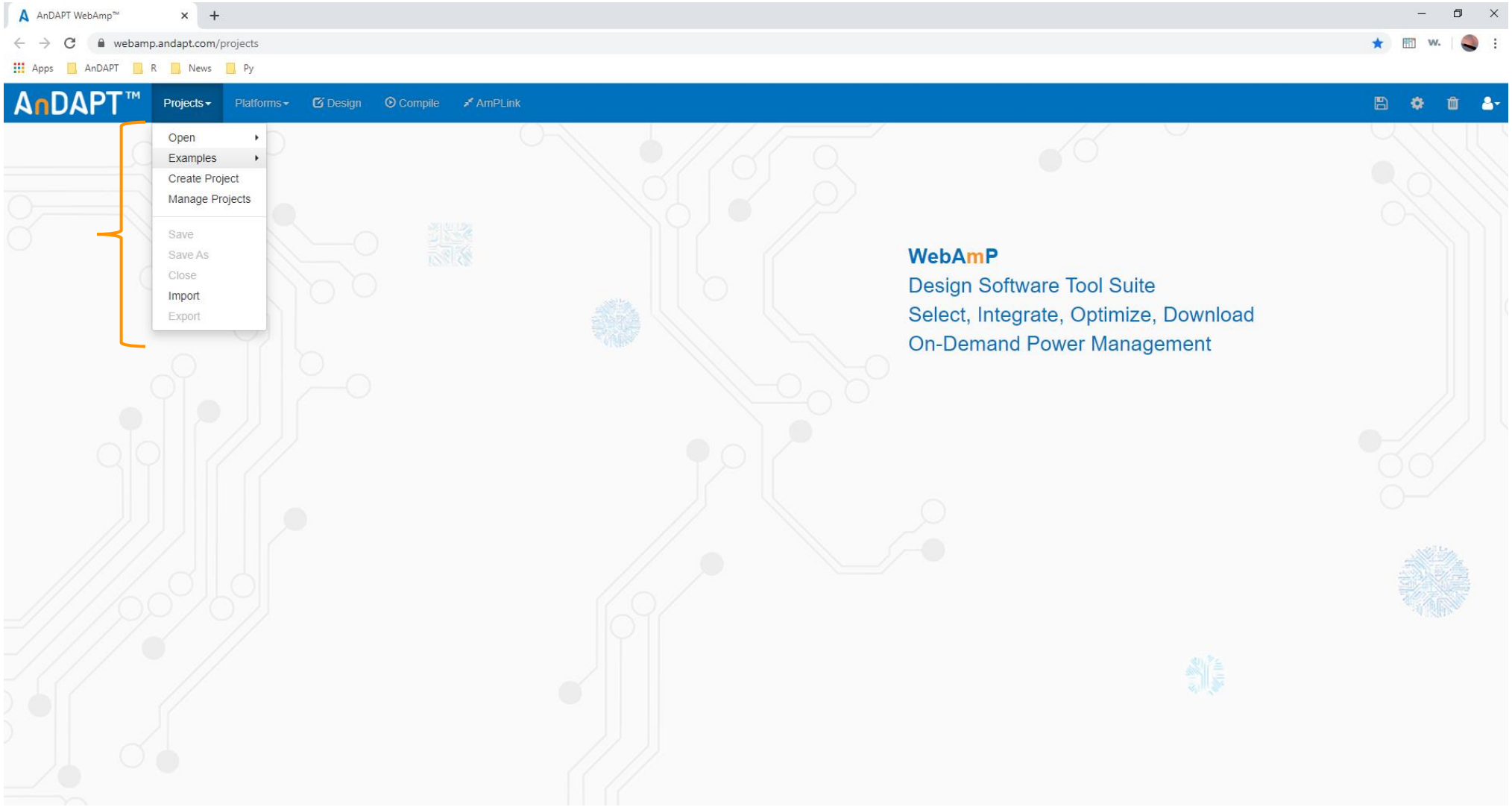
WebAmp Access

Web Tools page gives access to:
- WebAdapter
- WebAmp
- How to videos, guides and more



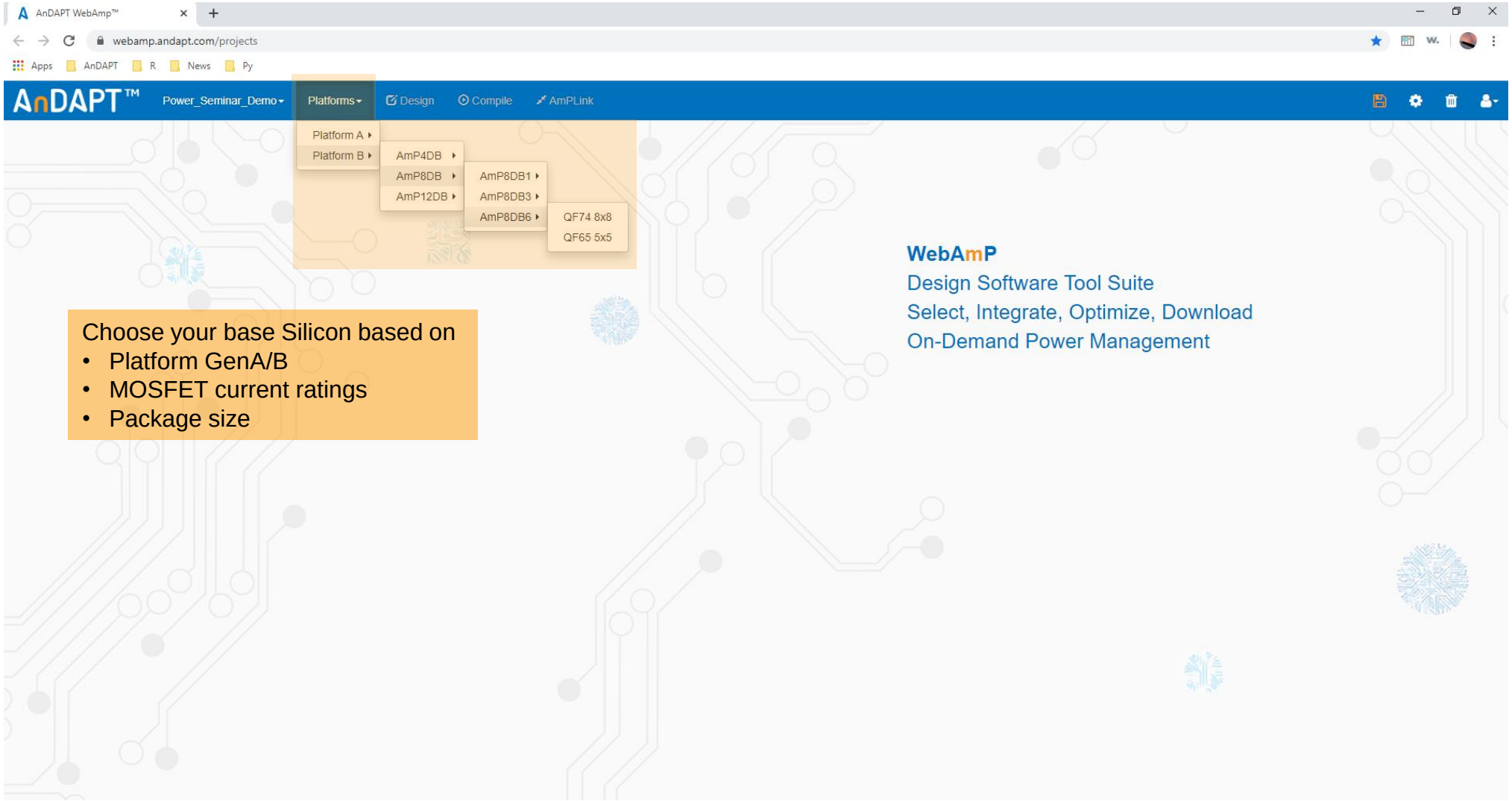
AnDAPT

WebAmp for On-Demand Power Solution



AnDAPT

Choose Base Silicon

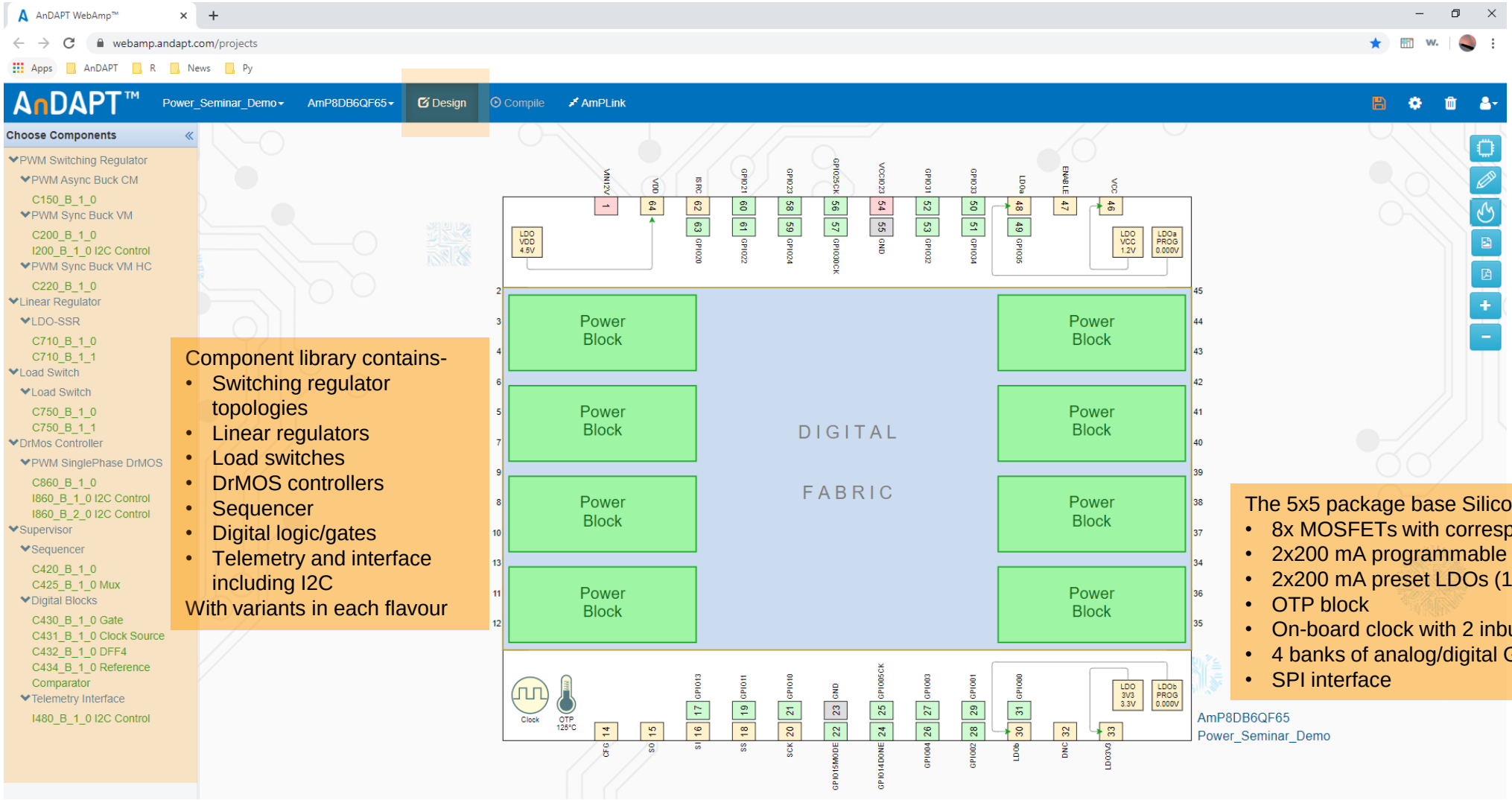


Choose your base Silicon based on

- Platform GenA/B
- MOSFET current ratings
- Package size

AnDAPT

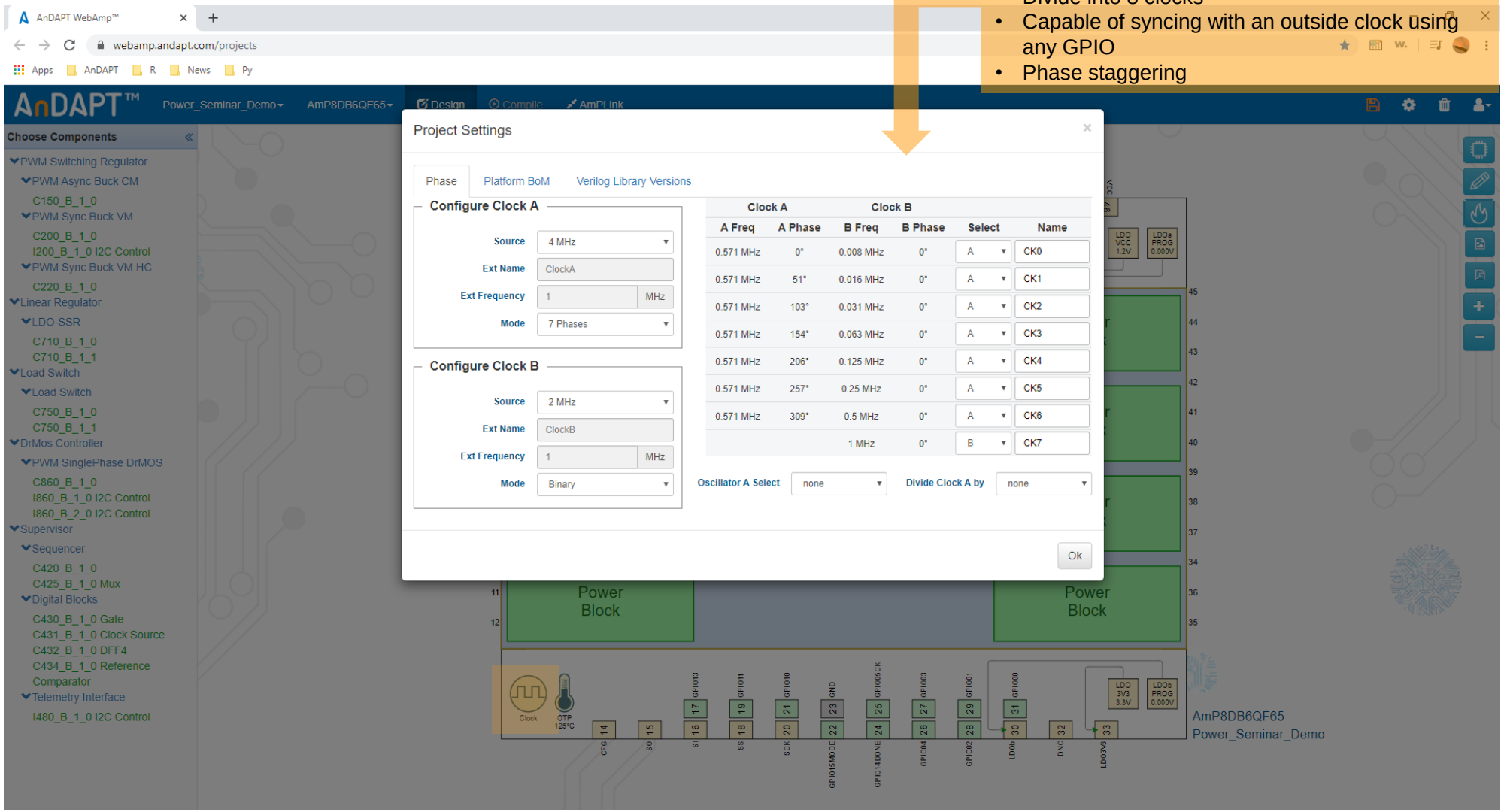
Design Your IC



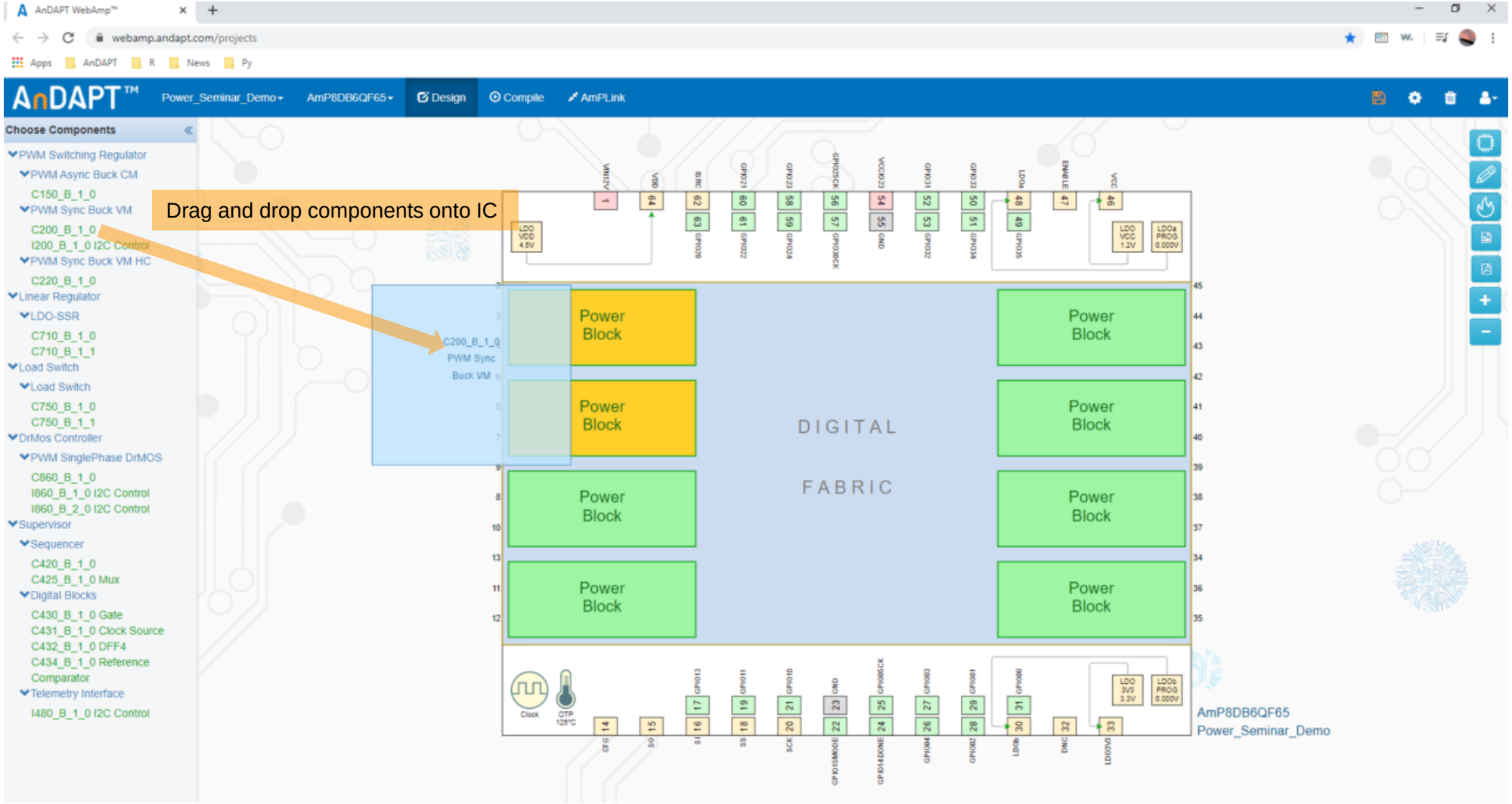
On-Board Clocks

On-board clock with 2 oscillators (500 kHz – 32 MHz)

- Divide into 8 clocks
- Capable of syncing with an outside clock using any GPIO
- Phase staggering



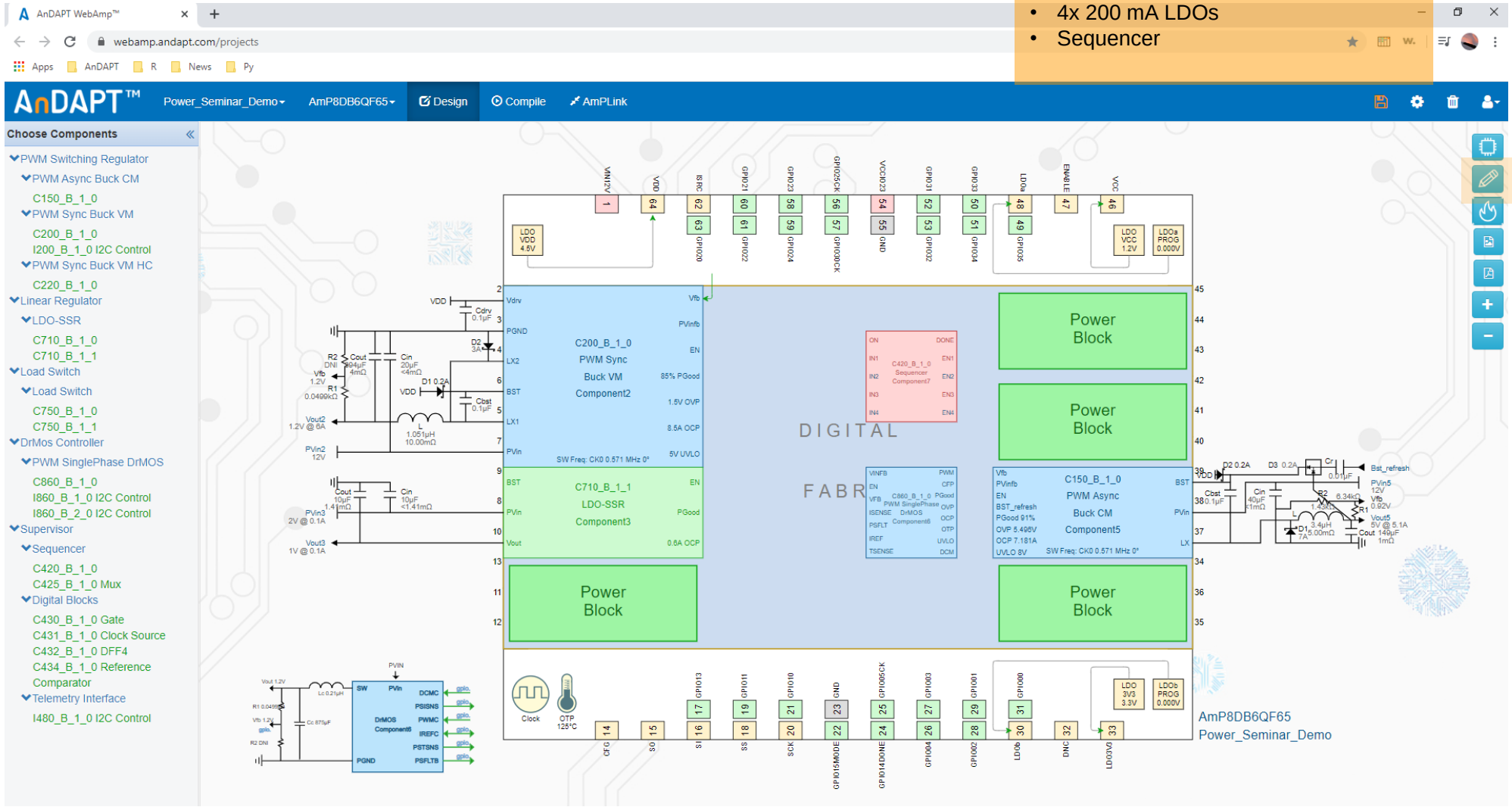
Drag and Drop Library Components



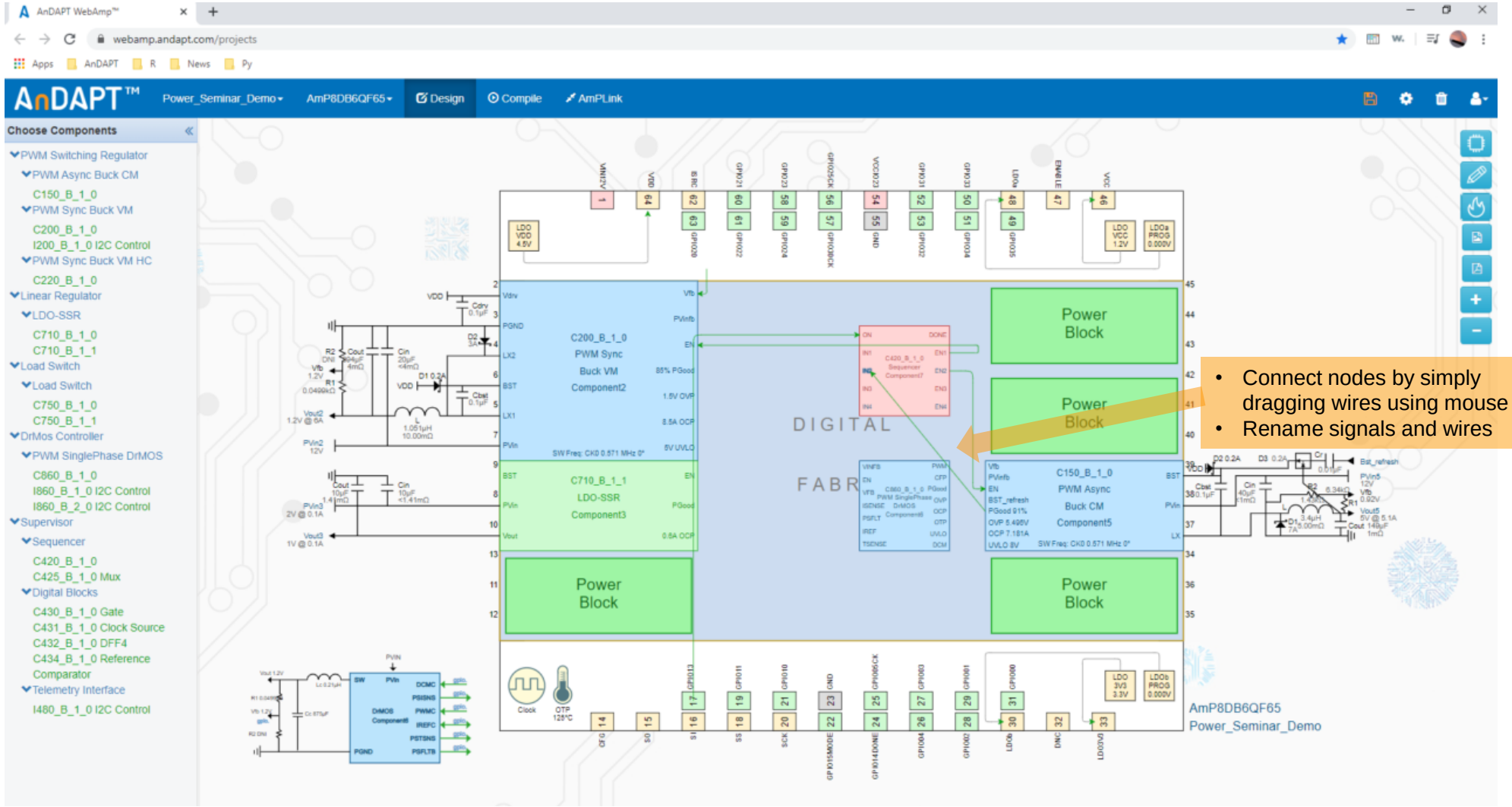
Integrate More Rails

Customize IC within minutes.
This example includes:

- 1x 6 A synchronous buck regulator
- 1x 2 A LDO
- 1x upto 40 A DrMOS controller
- 1x 6A asynchronous buck regulator
- 4x 200 mA LDOs
- Sequencer



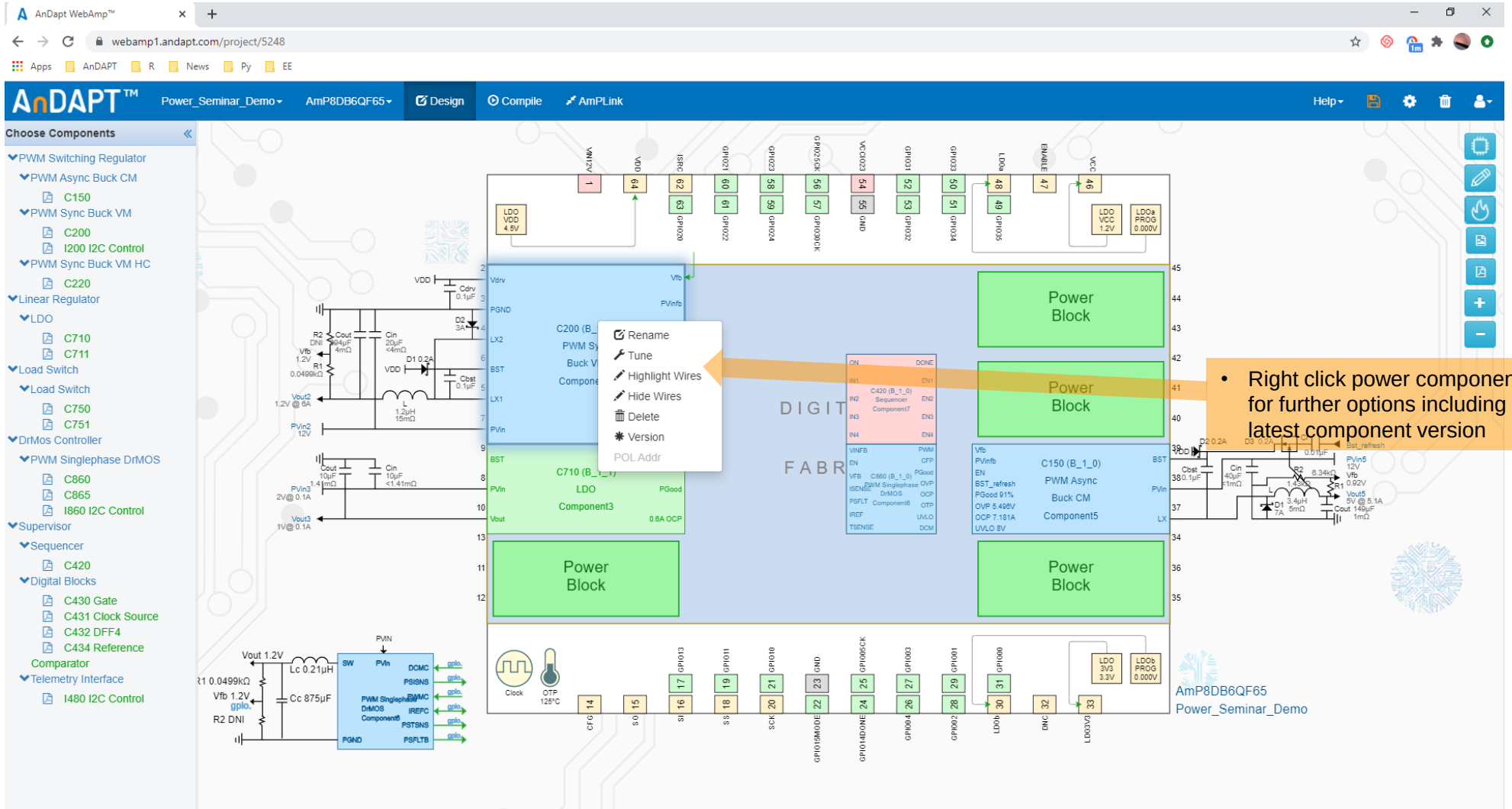
Wire Connections and Naming Signals



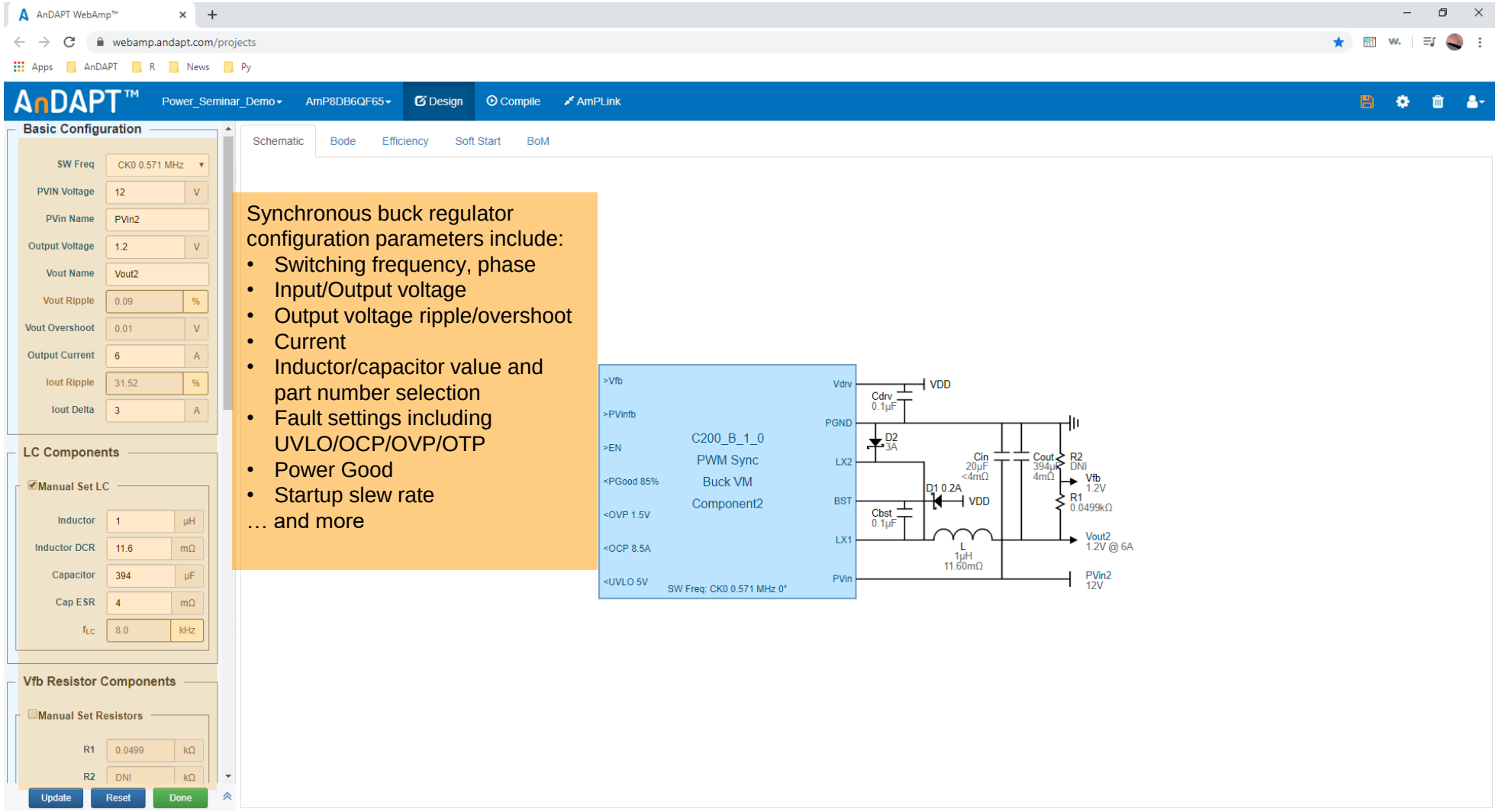
- Connect nodes by simply dragging wires using mouse
- Rename signals and wires

AnDAPT

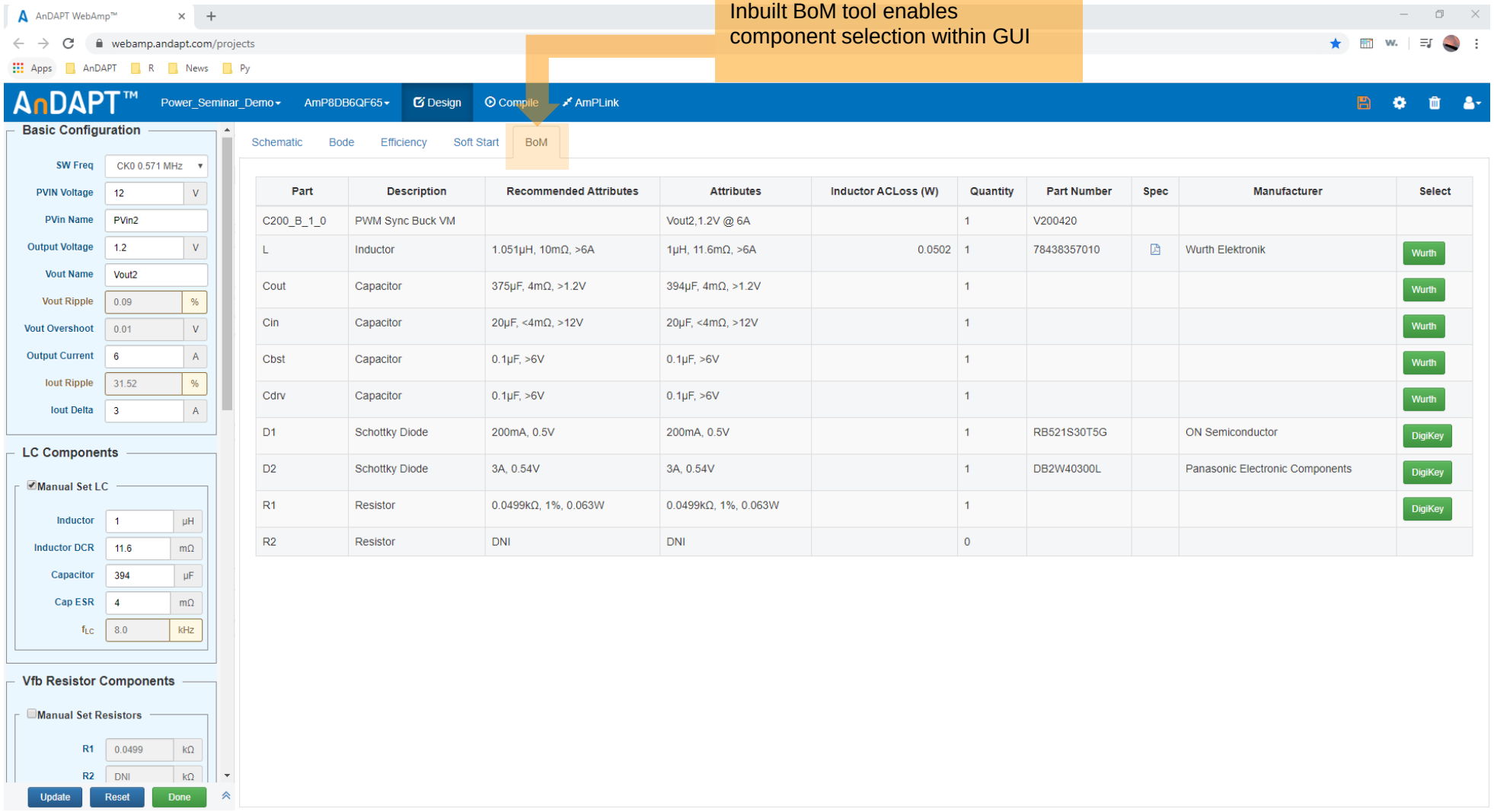
Power Component Options



Synchronous Buck Details



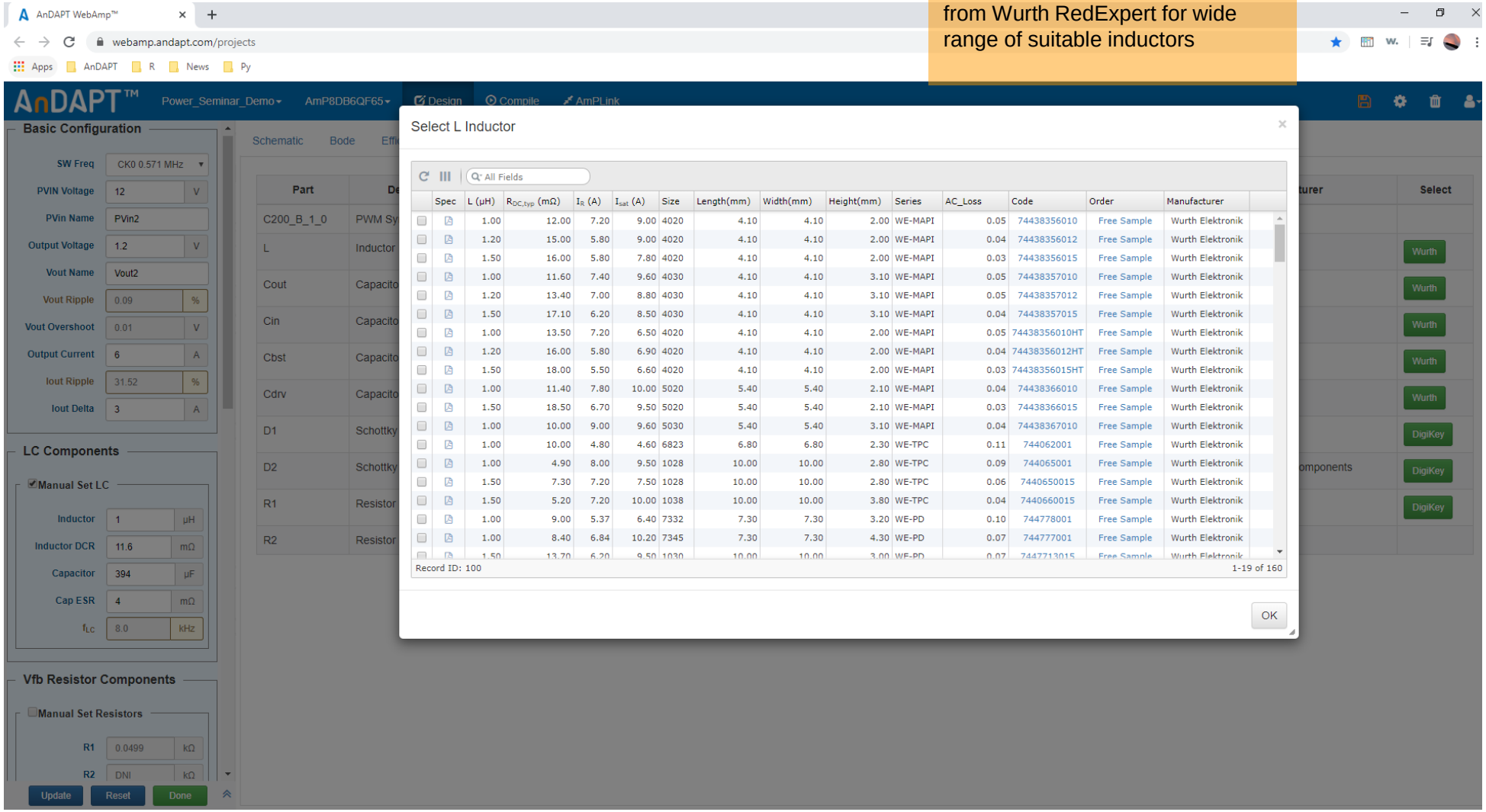
Bill of Materials



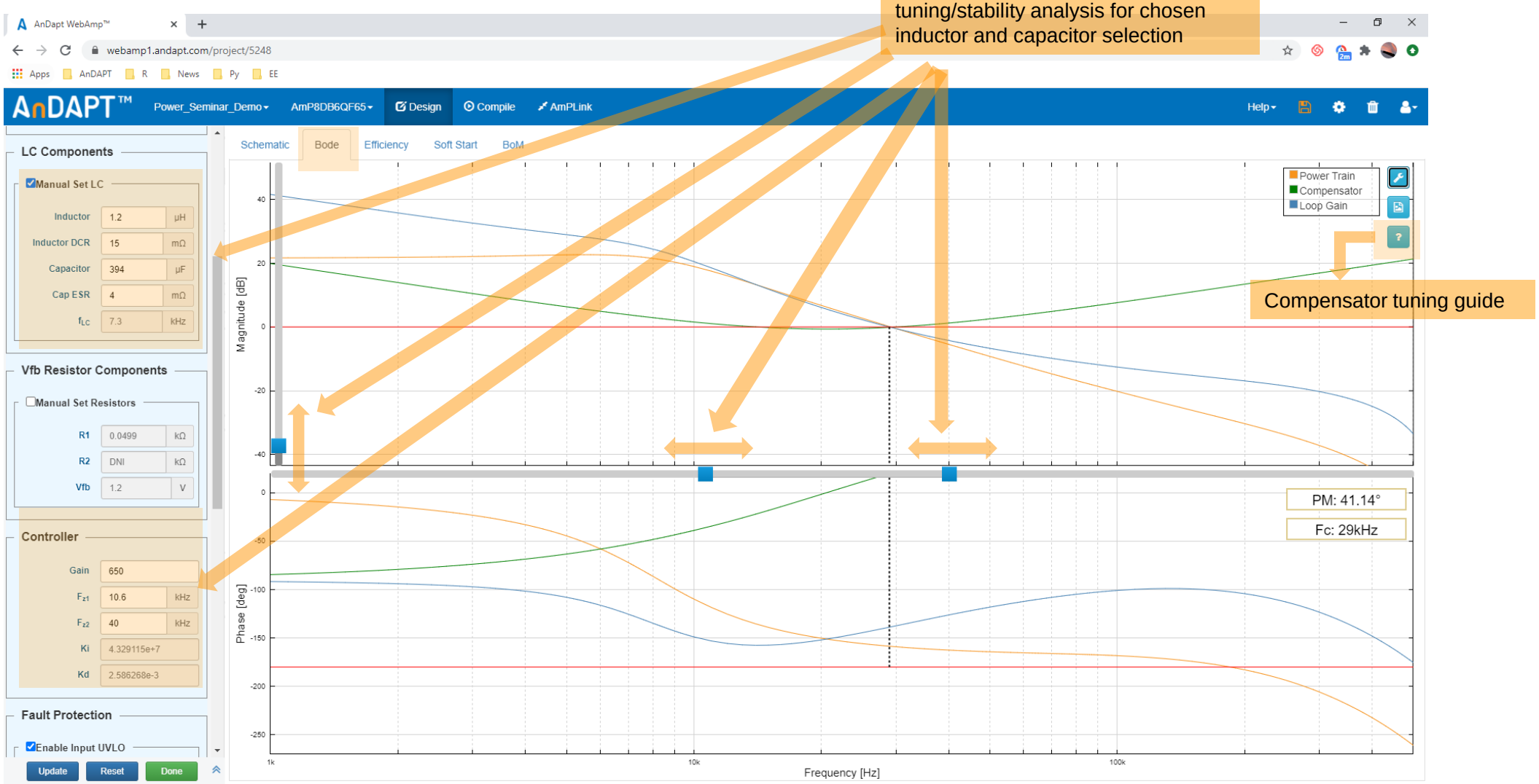
Part	Description	Recommended Attributes	Attributes	Inductor ACLoss (W)	Quantity	Part Number	Spec	Manufacturer	Select
C200_B_1_0	PWM Sync Buck VM		Vout2,1.2V @ 6A		1	V200420			
L	Inductor	1.051µH, 10mΩ, >6A	1µH, 11.6mΩ, >6A	0.0502	1	78438357010		Wurth Elektronik	Wurth
Cout	Capacitor	375µF, 4mΩ, >1.2V	394µF, 4mΩ, >1.2V		1				Wurth
Cin	Capacitor	20µF, <4mΩ, >12V	20µF, <4mΩ, >12V		1				Wurth
Cbst	Capacitor	0.1µF, >6V	0.1µF, >6V		1				Wurth
Cdrv	Capacitor	0.1µF, >6V	0.1µF, >6V		1				Wurth
D1	Schottky Diode	200mA, 0.5V	200mA, 0.5V		1	RB521S30T5G		ON Semiconductor	DigiKey
D2	Schottky Diode	3A, 0.54V	3A, 0.54V		1	DB2W40300L		Panasonic Electronic Components	DigiKey
R1	Resistor	0.0499kΩ, 1%, 0.063W	0.0499kΩ, 1%, 0.063W		1				DigiKey
R2	Resistor	DNI	DNI		0				

Explore Detailed Component Parameters

Inductor selection provides data from Wurth RedExpert for wide range of suitable inductors

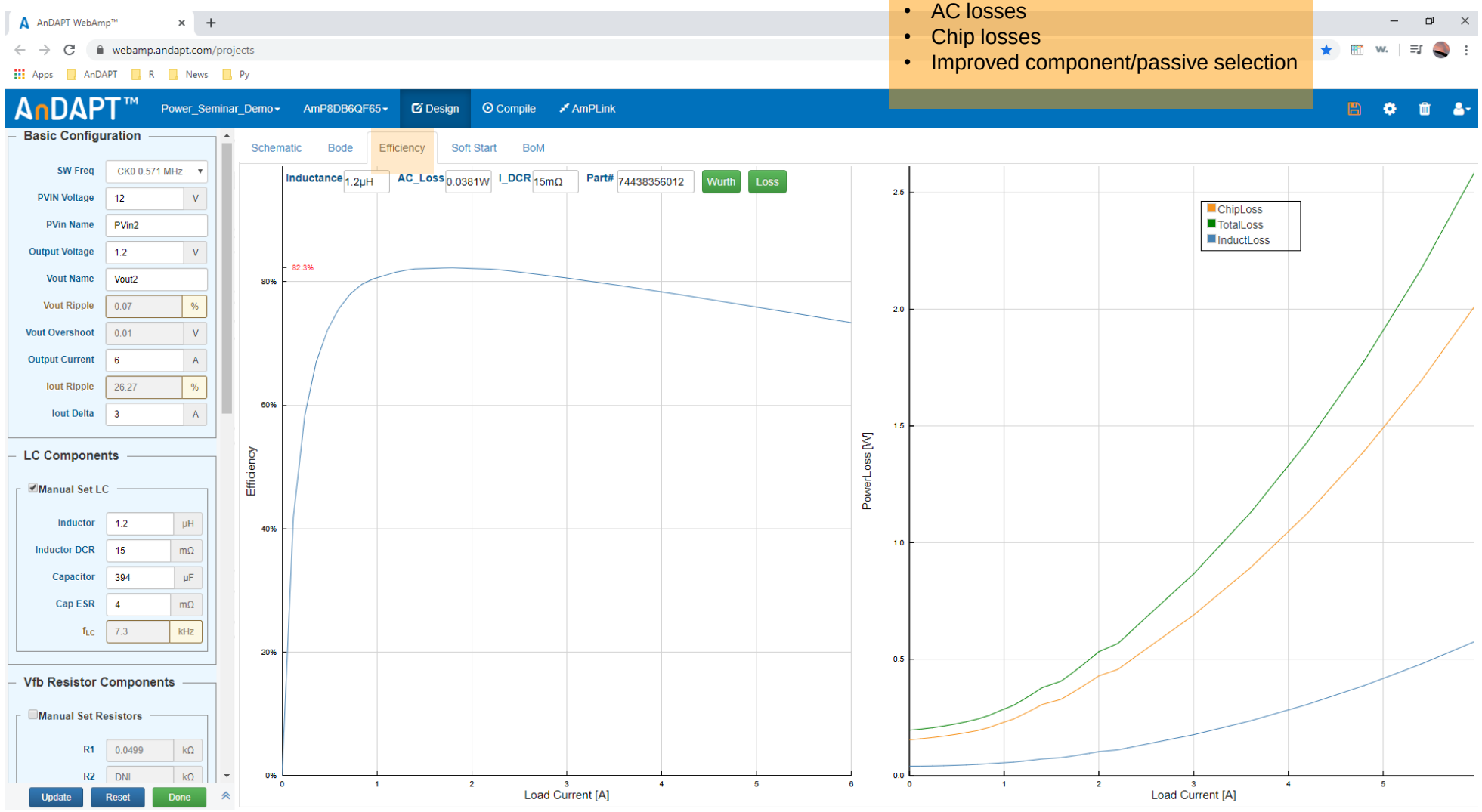


Compensator Tuning and Stability Analysis

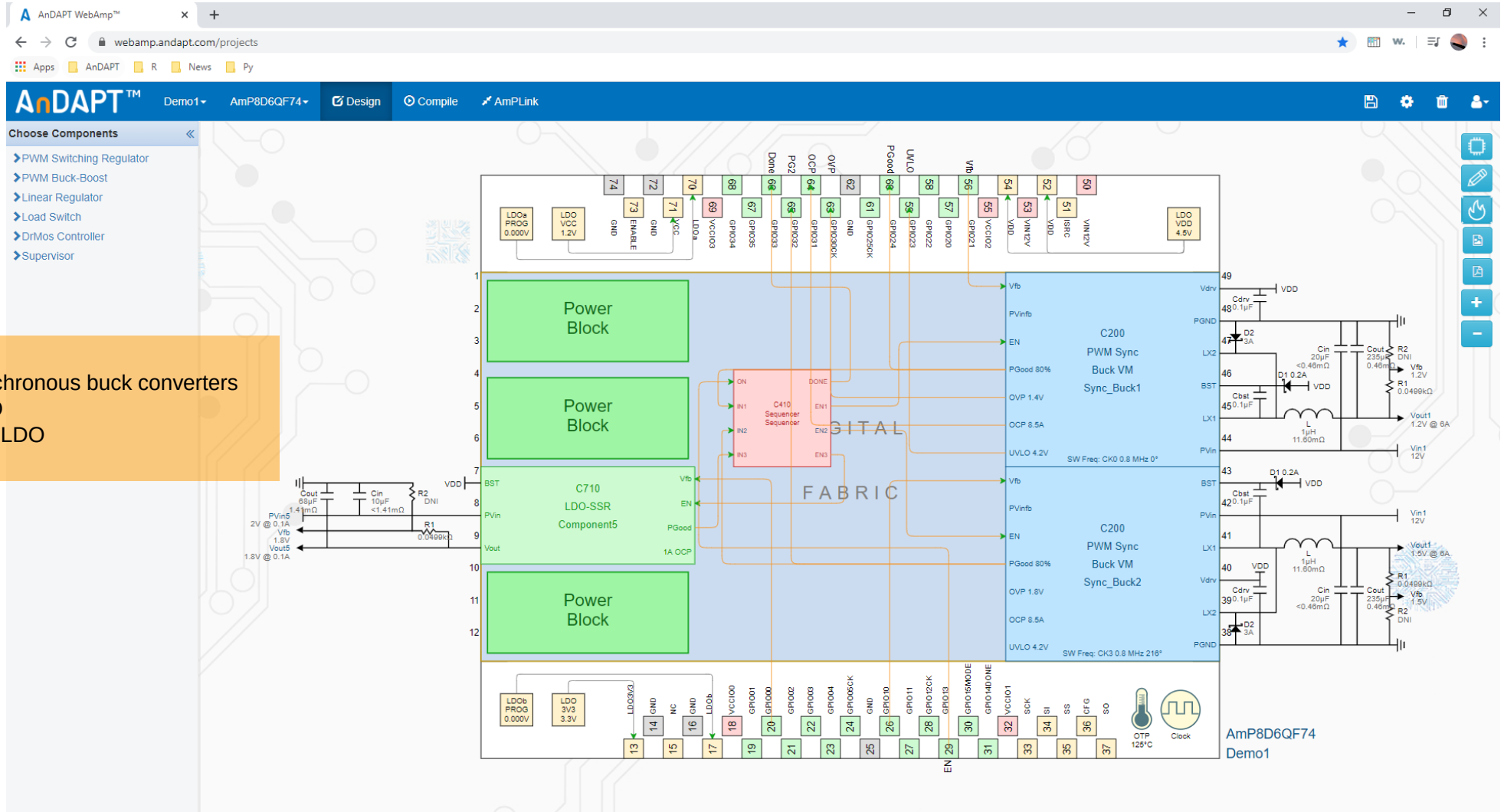


Efficiency Determination

Inbuilt efficiency plots features:
- Eval board PCB parasitics
- DC losses
- AC losses
- Chip losses
- Improved component/passive selection



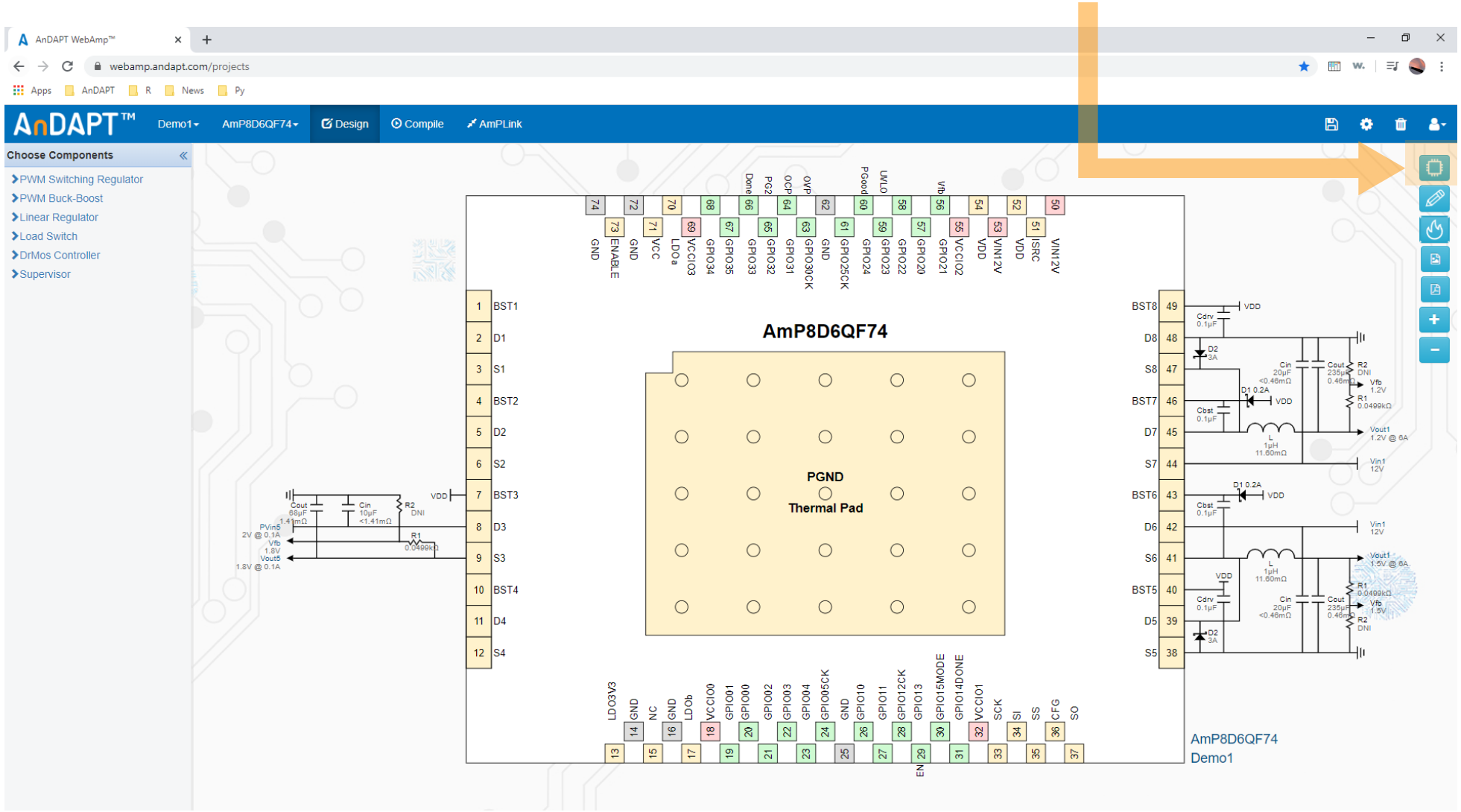
Demo Example (8x8 Package IC)



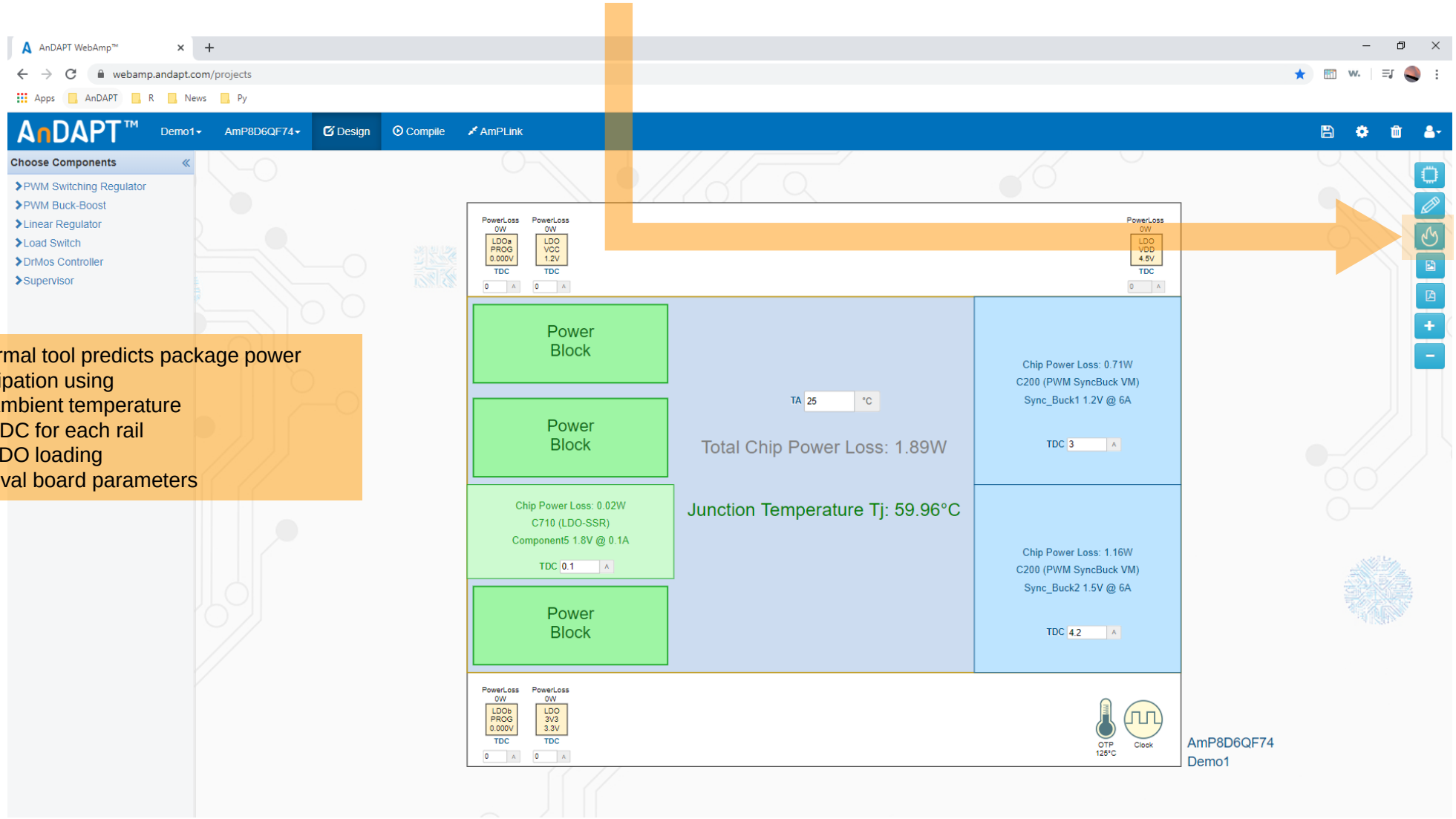
IC includes:

- 2x 6 A synchronous buck converters
- 1x 2 A LDO
- 4x 200 mA LDO
- Sequencer

IC Pinout View for Schematic Design



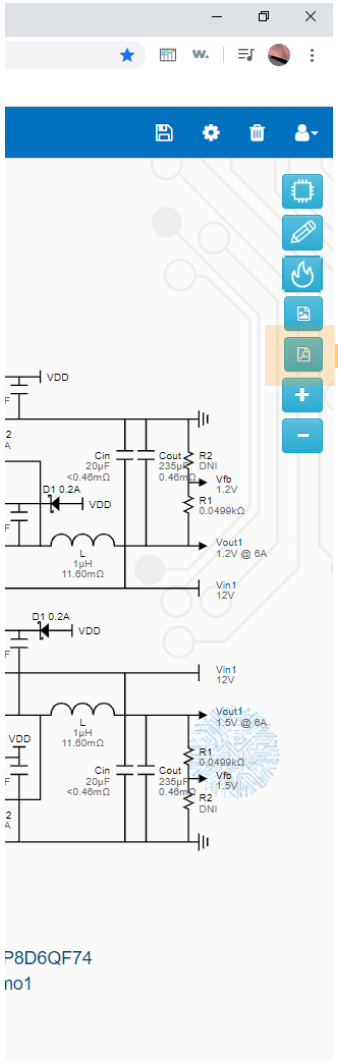
IC Package Thermal View

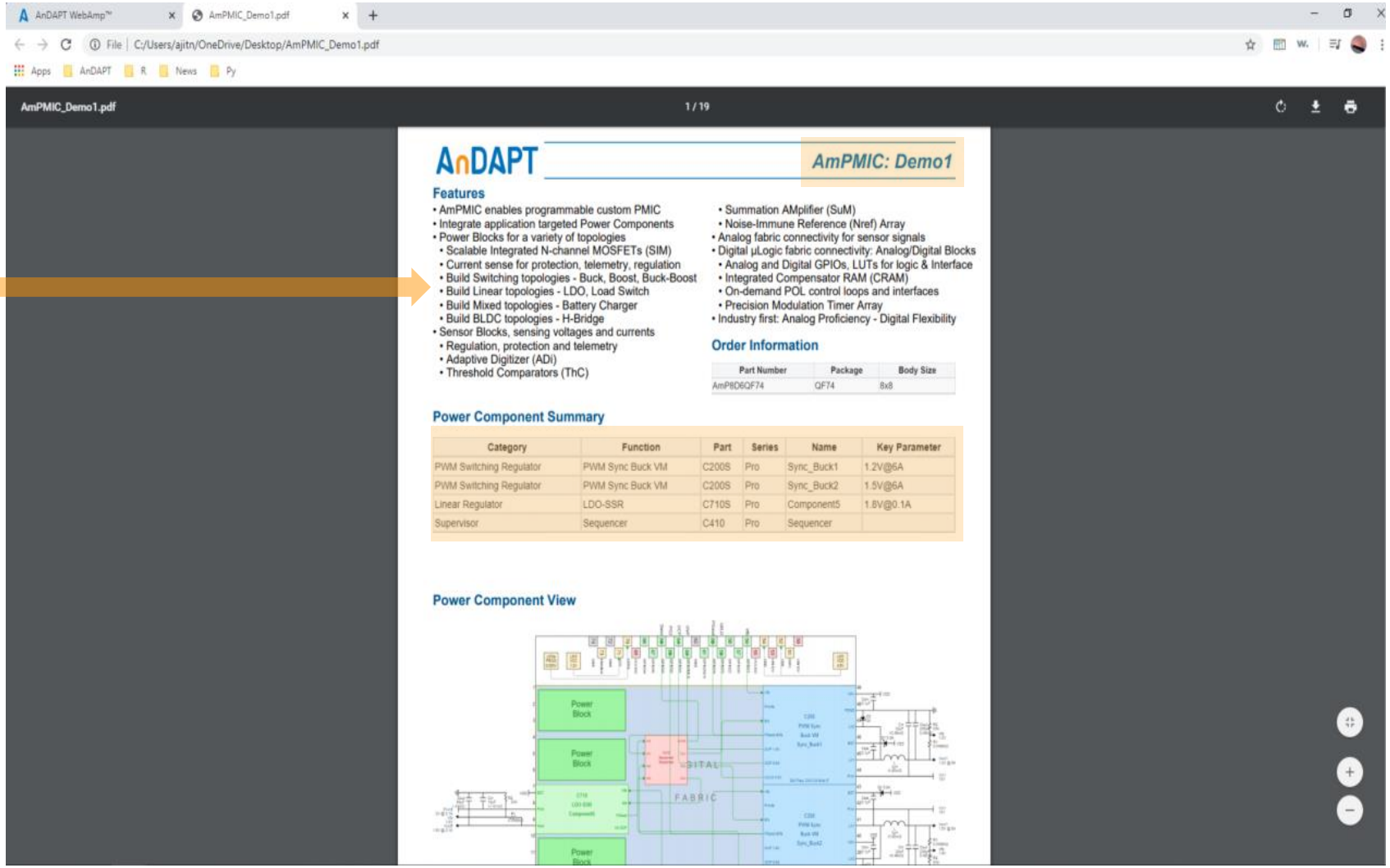


Thermal tool predicts package power dissipation using

- Ambient temperature
- TDC for each rail
- LDO loading
- Eval board parameters

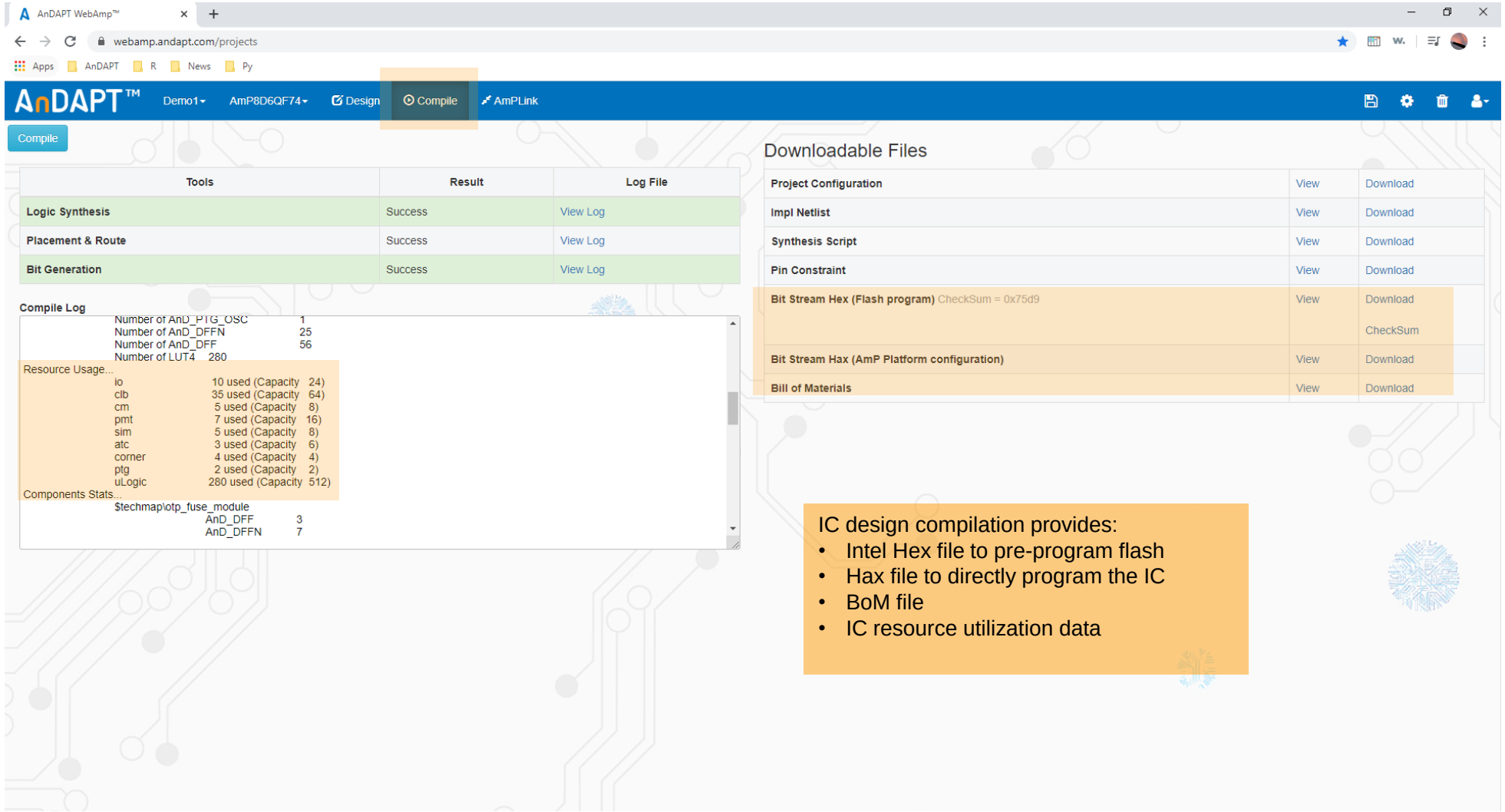
Auto Custom Datasheet Generation





AnDAPT

Design Compilation and File Generation



IC design compilation provides:

- Intel Hex file to pre-program flash
- Hax file to directly program the IC
- BoM file
- IC resource utilization data

AnDAPT

Additional Information

- Website: andapt.com
- Register: andapt.com/register
- Datasheets: andapt.com/docs
- Demoboards: andapt.com/software-tools
- Evaluation Board Video Tutorials
  - PMIC with Quad Bucks AnD8400EB
  - PMIC with DrMOS, Dual Bucks and LDOs AnD7220EB
- About AnDAPT: AnDAPT_Backgrounder
- Contact Sales: mailto:sales@andapt.com