

AmP™ Power Components

AmP4D/AmP8D/AmP12D

Power Components for Drag & Drop

AnDAPT offers a broad selection of Power Components for the AmP family, with competitive figures of merit that replace hundreds of traditional catalog parts and point-of-load (POL) regulators. Consequently, AmP platform devices help reduce inventory costs and operating expenses.

Power components of various topologies, range from buck, boost, buck-boost, battery chargers, load switches, LDOs to gate drivers, controllers, sequencers and supervisors. Single and multi-phase regulators and controller topologies are also offered. These come complete with a selection of control loop, compensation, control and telemetry choices.

The library, shown in the List of Power Components Table (next page) includes a variety of prebuilt, proven Power Components

- Regulator topologies: Buck, Boost, Buck-Boost regulators, Synchronous or asynchronous, Single or multi-phase
- Linear topologies: LDOs with source-side, drain-side and push-pull (DDR)regulation; Load Switch
- Controller topologies: Buck, Synchronous, Single or multi-phase, External MOSFET or DrMOS

- Mixed topologies: Battery chargers, H-bridges
- Supervisory functions: Sequencers, Fault Managers, Timers

Users simply drag-and-drop a component from the library onto the selected platform.

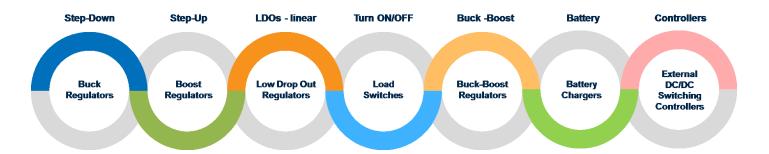
Each Power Component includes features defined via on-screen options which enables the user to optimize the component to the application need.

Power Component Advantages

The key advantages of AmP Power Components include the following.

- Mix-and-match Power Components to meet the various and differing power requirements of your system.
- Integrate multiple, dissimilar power rails to consolidate parts count, reduce board area, simplify sourcing, and reduce inventory requirements.
- Simplify sequencing and control of multiple power rails.
- · Add monitoring and reset controls.
- Tailor a Power Component with the exact features and unique specifications required in your design.

Power Components for Drag & Drop Web Tool to Select, Integrate & Analyze Power Components





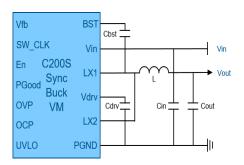
Selecting a Power Component

As shown in the List of Power Components Table, Power Components come with different topologies and capabilities. Across a table row, the Power Components are compatible in power path performance, yet have increasing capabilities for control, monitoring and telemetry.

Pro Series Power Components include the standard features that one expects in similar stand-alone devices, plus some additional capabilities, where applicable, such as ...

- Adjustable switching frequency
- Adaptable stability, bandwidth, gain and phase margin
- Internally adjustable soft start and stop
- Adjustable protections: Undervoltage lockout (UVLO), overcurrent (OCP), overvoltage (OVP), and overtemperature (OTP)

Example Schematic symbol for Power Components



List of Power Components Table

CATEGORY	FUNCTION	PRO SERIES	I2C SERIES	DVS SERIES	DESCRIPTION
PWM Switching Regulator Integrated Switch	PWM Sync Buck CM PWM Sync Buck VM PWM Sync Buck VM HC PWM Async Buck VM PWM Async Boost VM	C100 C200 C210S C250S C350S	1100 1200 1210S 1250S 1350S	P100 P200 P210S P250S P350S	SyncPWM Current Mode SyncPWM Voltage Mode SyncPWM Voltage Mode, High Current 1 Hi, 2 Lo AsyncPWM Voltage Mode AsyncPWM Voltage Mode
Multiphase-PWM Switching Regulator Integrated Switch	PWMMultiPhBuck CM PWM MultiPh Buck VM	C510 C520	1510 1520	P510 P520	SyncPWM Current Mode Multi-Phase SyncPWM Voltage Mode Multi-Phase
PWM Buck-Boost	PWM Sync Buck-Boost VM	C550	1550	P550	Sync PWM Voltage Mode
Linear Regulator	LDO-SSR LDO-DSR LDO-DDR	C710S C720S C730	I710S	P710S	CVSource Side Regulation CVDrain Side Regulation CV Push-Pull for DDR RAM
Load Switch	Load Switch	C750S	1750S	P750S	Slew Rate Controlled, Current Limit
Hysteretic Regulators	Hysteretic Buck COT	C620			Hysteretic COT SyncRegulator
Controller-Switch Controller-DrMOS	PWM Buck PWM Buck DrMOS	C800 C850	1800 1850	P800 P850	SyncPWM Voltage Mode External Switch SyncPWM Voltage Mode ExternalDrMOS
Battery Charger	BatteryCharger	C900			Switchingcharger- trickle,LDO, Reverse protection
Supervisor	Sequencer Reset Generator Push-button Controller FaultManager	C410 C450 C460 C430			Sequencer Reset Generator Push-button Controller FaultManager