AnDAPT

AnDAPT, LLC

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AmP ADVANTAGE

Integrate Discrete POLs into PMIC •
Build custom PMIC With No NRE •
Best Fit for System Requirements •

ON-DEMAND PMIC BENEFITS

Instant PMIC Design •
Lower Cost • Smaller Board space •
BoM Savings • Lower Inventory •
Sequencing • Supervision •
Monitoring • Custom Telemetry •
Competitive Transients, Efficiency •

POWER COMPONENTS

DC-DC • Switching Regulators •
Buck • Boost • Buck-Boost •
Linear Regulators • LDO •
Load Switches •
DrMOS Controllers •
Supervisor • Sequencer •
Fault Manager • Logic Gates •
Analog-Digital Glue •
Battery Chargers •
Capacitive Charge Pump •

AnDAPT'S SOFTWARE DEFINED POWER SOLUTION

AnDAPT™, LLC is revolutionizing the power management market with its disruptive Software Defined Power Solution, offering customers unprecedented programmability to create and customize a Power Management IC (PMIC) within minutes. AnDAPT power solutions target markets where the number of power rails is large, therefore require power management functions, but volume is not large enough to justify development of a full custom PMIC.

AnDAPT ON-DEMAND PMIC

AnDAPT On-Demand Power Management Solutions utilize AmP™ platform ICs. Users start with WebAmP™ Cloud tools using a standard browser, drag and drop software IP based Power Components (equivalent to single function catalog POLs) per their system requirements and compile and download the AmP Platform IC to build a custom PMIC for their application. AnDAPT's On-Demand PMICs offer flexibility for rapid changes, reduce time to market, lower device cost, less BoM and board area, while matching efficiency and performance of discrete POLs.

AmP POWER COMPONENTS (IP)

AmP Power Components are proven software-based (IP) devices, which replace traditional single function, discrete catalog devices such as Buck, Boost, Buck-Boost, DrMOS controller, Load Switches, LDOs, Battery Chargers and Sequencers. AnDAPT also offers system support functions such as reset generator, voltage monitors, logic gates and much more functionality to build a complete system solution. These components are available as drag and drop items in a software toolbox and are integrated on AmP Platforms without needing long development cycles, high production volumes or NRE costs typical of full custom PMIC solutions.

AnDAPT - SOFTWARE DEFINED POWER

MARKETS

Datacenter • 5G • Accelerators •
Networking • Telecomm • SSD •
Gaming Platforms • Optical Modules •
Industrial • Robotics • Drones •
AI • Machine Learning • Medical •
Autonomous • EVs • Automotive •
Instrumentation • Audio-Video •
Industrial Platforms • IoT Platforms •

CLOUD TOOLS

WebAmP, AmPLink •

WEBAMP BENEFITS

No Coding Needed •
Tune Power Components •
Tune Supervision, Sequence •
Instant Testing on Customer System •
Change and Reuse •

PROCESS

Vanguard International Semiconductor
110nm BCD •

PACKAGE

Advanced Semiconductor Engineering
AmP8D6QF65 5mm x 5mm •

AmP PLATFORM IC (ADAPTIVE MULTI-RAIL POWER)

Adaptive Multi-Rail Power (AmP8D6) Platform ICs are available off-the-shelf. Targeted for 12 Volt VIN applications,, the AmP8D6 includes eight Power and Sensor blocks, three LDOs, 24 analog or digital GPIOs and is offered in flip-chip copper pillar (5x5 sq. mm package).

The power blocks and sensor blocks are embedded in a low-cost FPGA platform. Power blocks are used for building switching and linear regulators, and comprise of power FETs (6A), current sensors, ramp generators and DACs. Sensor blocks are used to monitor current, voltage, and temperature signals, and comprise of ADCs, Comparators and Instrumentation amplifiers.

WebAmP CLOUD SOFTWARE TOOLS

WebAmp™ cloud-based tools enable users to select, integrate, optimize and manage power components for AmP platforms. The WebAmP graphical tools are intuitive, easy-to-use, and provide the capability to configure and control the PMIC for stability, PID compensator tuning, efficiency, startup/shutdown, protection characteristics, thermal performance, etc. Once complete, users simply download the compiled designs to an AmP platform using an AmPLink™ USB adapter to build a custom PMIC within minutes. Additional analysis tools include thermal management, stability analysis, auto BoM (Bill of Materials) generation, auto design documentation and I2C telemetry to monitor/debug rails in-circuit real time.

UNIQUE TECHNOLOGY ENABLER

AmP Platform ICs are an AnDAPT pioneered and patented new genre of Analog-Digital FPGAs. Transparent to the end user, this FPGA's flexibility is leveraged by the On-Demand PMICs to integrate different topology discrete POLs on the same IC, and by the accompanying intuitive software tools, to abstract the device complexity into customer friendly easy to use, power domain terminology, for building programmable custom PMICs for a broad range of applications.

Finally, AnDAPT is a fabless semiconductor company and AmP ICs are fabricated by Vanguard in their most advanced 110nm BCD process and packaged by Advanced Semiconductor Engineering (ASE)

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