



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Features

- Enables On-Demand power management
- Integrate application targeted Power Components
- Power Blocks for a variety of topologies
 - Scalable Integrated N-channel MOSFETs (SIM)
 - Current sense for protection, telemetry, regulation
 - Build Switching topologies - Buck, Boost, Buck-Boost
 - Build Linear topologies - LDO, Load Switch
 - Build Mixed topologies - Battery Charger
 - Build BLDC topologies – H-Bridge
- Sensor Blocks, sensing voltages and currents
 - Regulation, protection and telemetry
 - Adaptive Digitizer (ADi)
 - Threshold Comparators (ThC)
 - Summation AMplifier (SuM)
 - Noise-Immune Reference (Nref) Array
- Analog fabric connectivity for sensor signals
- Digital μ Logic fabric connectivity: Analog/Digital Blocks
 - Analog and Digital GPIOs, LUTs for logic & Interface
 - Integrated Compensator RAM (CRAM)
 - On-demand POL control loops and interfaces
 - Precision Modulation Timer Array
- Industry first: Analog Proficiency – Digital Flexibility

AmP Family

- Nine member 12 V platform family (AmP8D available now)
 - Four, Eight, Twelve Power & Sensor Blocks
 - Up to four, eight and twelve switcher or linear rails
 - 6A, 3A, 1A per DMOS MOSFETs; RDSon 40m Ω
 - Analog or Digital I/Os: 24
 - Package: 8x8 sq. mm
- Standard BCD process: 110nm, VDSmax 20V

AmP DMOS Platforms

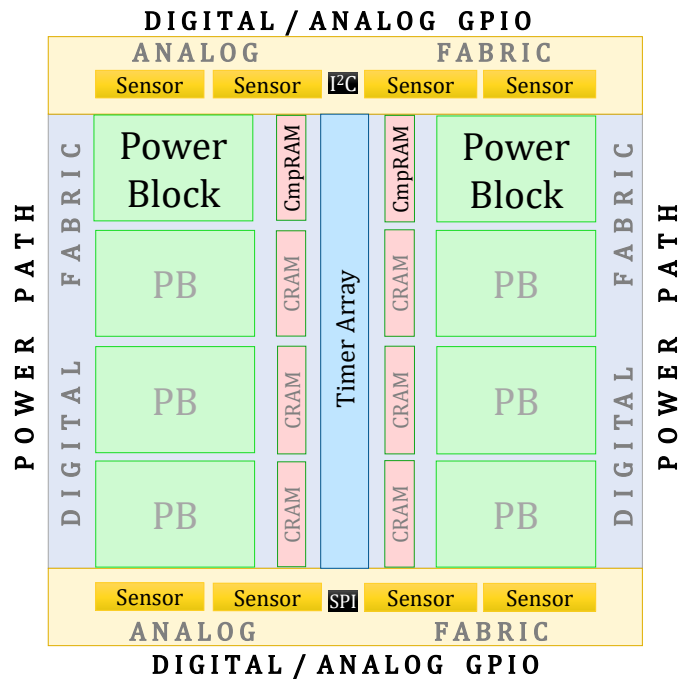
Power Blocks	GPIOs	Device		
Four	12	AmP4D1	AmP4D3	AmP4D6
Eight	24	AmP8D1	AmP8D3	AmP8D6
Twelve	36	AmP12D1	AmP12D3	AmP12D6

Applications

Power Component Integrator

- Build Buck, Boost, Buck-Boost POL topologies
- PWM – CV/CC, voltage mode or current mode
- Hysteretic – CON/COF
- Load Switch, LDO - Source/Drain, DDR LDO
- External Switching Controllers/Gate Drivers
- Peak efficiency > 92%, Soft start/stop

Adaptive Multi-Rail Power Platform – AmP



AmP8D Platform Features

Device	8Dx1	8Dx3	8Dx6
Drain Current	1A	3A	6A
Power Blocks	8	8	8
Sensor Blocks	8	8	8
Nrefs	8	12	24
Timers	16	16	16
LDOs for GPIOs	1	2	4
μ Logic Fabric LUTs	512	512	512
Package*	GPIOs		
QF74	8x8mm	8D MOSFETs	24
			24
			24

*TA: -40C to 85C, TJ: -40C to 125C;

Digital power management IC

- Monitor and throttle/margin power rails
- Power ON/OFF/Sequence power rails
- Buck, Boost, Buck-Boost, LDO, Battery Chargers

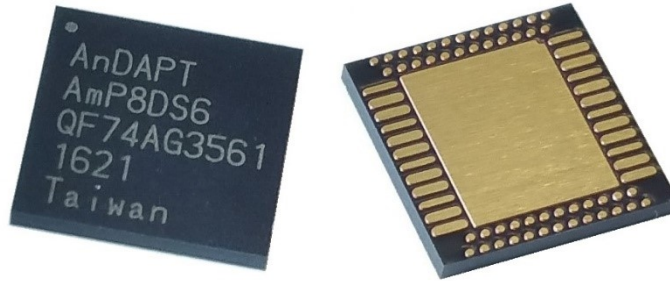
Battery Charger

- Build trickle, CC, CV Charger
- Power Path integration
- PMBus, SMBus, I2C for Telemetry and control
- Protection: On-demand OCP, OVP, OTP, UVLO

Order Information

Platform	MOSFETs	Technology	Current – A	Package	Part Number	Availability
AmP	8	D	1	QF74	AmP8DS1QF74	Now
AmP	8	D	3	QF74	AmP8DS3QF74	Now
AmP	8	D	6	QF74	AmP8DS6QF74	Now

Package Marking Example – QF74



Package Configuration

Top View (Pin and Thermal Pads are on bottom side)

