

## ActiveCharge™ Features

- Supports Qualcomm® Quick Charge 2.0™ HVDCP Class A
- Fully Developed Solutions
- High Efficiency
- BOM Cost Reduction
- Shorter Time-To-Market

## Featured Products

- **ACT4533C** DC/DC Converter IC with up to 10-36V input voltage and up to 2.9A output current
- **ACT520** 6mm x 6mm PAC™ IC with 70V gate drivers, Multi-mode Power Manager, AFE, ARM Cortex core for 3-phase BLDC motor control

## About Active-Semi

- Headquartered in Dallas, Texas, USA
- Founded in 2004
- Investors: LG, USVP and Tenaya Capital
- 1.5 Billion ICs shipped
- Shipping over 30M ICs per Quarter
- Operations in the US, Europe, China, Taiwan, Hong Kong, Japan and S Korea
- ISO 9001:2008 Company
- ISO 14001:2004 Company
- [www.active-semi.com/about/leadership](http://www.active-semi.com/about/leadership)

Active-Semi's ActiveCharge™ line of ICs make it possible to implement fast charging solutions for mobile devices. With battery life falling short of the demands of power hungry smartphones, being able to quickly charge batteries seems to be a workable alternative to increasing battery size. With the advent of Qualcomm® Quick Charge™ 2.0, it is now possible to charge batteries for compatible mobile devices up to 75% faster than the conventional 5V/1A chargers.



Active-Semi offers two ActiveCharge™ solutions, car and wall chargers, that support Quick Charge™ 2.0 compatible devices by delivering output voltages of 5V, 9V, or 12V. These reference designs offer a high efficiency solution with the fewest number of parts, lowering BOM costs and speeding up time-to-market.

Active-Semi ICs that support ActiveCharge™ can be used to implement fast charging solutions such as:

- Car cigarette lighter adapter (CLA) chargers
- Wall adapter chargers
- Battery chargers for smartphones, tablets, and netbooks
- Digital cameras and bluetooth accessories
- USB power output ports

## Ultra-fast Mobile Power Charging Reference Designs using Active-Semi's ActiveCharge™ ICs

### ACT520 with ActiveCharge™ for High Performance Quick Wall Chargers



**ACT530 and EVK  
Available Now**

- ActiveQR™ Quasi-Resonant PWM controller
- Output Voltages of 5V/9V/12V
- Output current up to 2.9A
- Accurate line and inductance compensation
- No-load Standby Power < 30mW
- Excellent Efficiency with Low Cost 4V65 MOSFET
- Exceeds CEC Average Efficiency Requirements
- Independent Output Short Protection
- Protection for Over Current (OCP), Over Voltage (OVP), Over Temperature (OTP), Short Circuit (SCP), Transformer Short Winding, and Current Sense Resistor Short.

### ACT4533C with ActiveCharge™ for High Performance Quick Car Chargers

- Wide input range from 10V to 36V
- Output Voltages of 5V/9V/12V
- Output current up to 2.9A
- Stable with low-ESR ceramic capacitors
- Standby input current < 10mA
- Integrated Soft Start
- Thermal shutdown protection
- Accurate Cord Compensation
- Independent Output Short Protection
- Protection for Over Current (OCP), Over Voltage (OVP), Over Temperature (OTP)



**ACT4533C and EVK  
Available Now**

For more Active-Semi IC Products, Evaluation Kits, Application Solutions  
visit [www.active-semi.com](http://www.active-semi.com), or email [sales@active-semi.com](mailto:sales@active-semi.com)

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