

## Product Overview

### FAN54161: 6A Direct-Charger with Advanced Safety Monitoring

For complete documentation, see the data sheet.

The FAN54161UCX is a low loss direct charger which charges the battery safely at 6 A and provides active protection, regulation and monitoring features.

Integrated Protection and Regulation features control a pair of MOSFETs to ensure that the FAN54161UCX output voltage and current stay within a safe programmed operating range. Configurable hardware based safety features turn off the MOSFET in the event of a fault and notify the system.

An integrated 10-bit Analog-to-Digital Converter (ADC) provides real-time monitoring of input, output voltage, currents and temperature so that the system host or microcontroller can effectively use this information to optimize adapter and charger configuration.

### Features

- Integrated Back-to-Back Common Source N-channel MOSFETs with Combined RON = 11 mΩ
- Maximum Input Voltage Tolerance of +22 V
- Reverse Input Voltage Tolerance of -2 V
- External N-channel MOSFET Drive Capability with Tolerance up to +32 V
- Regulation Modes (Charge Current, Input Current, Output Voltage, Battery Cell Voltage)
- Hardware-based Safety Protections (Input Over-Voltage, Input Under-Voltage, Output Over-Voltage, Input Over-Current, Die Over-Temperature, Internal Switch Short)

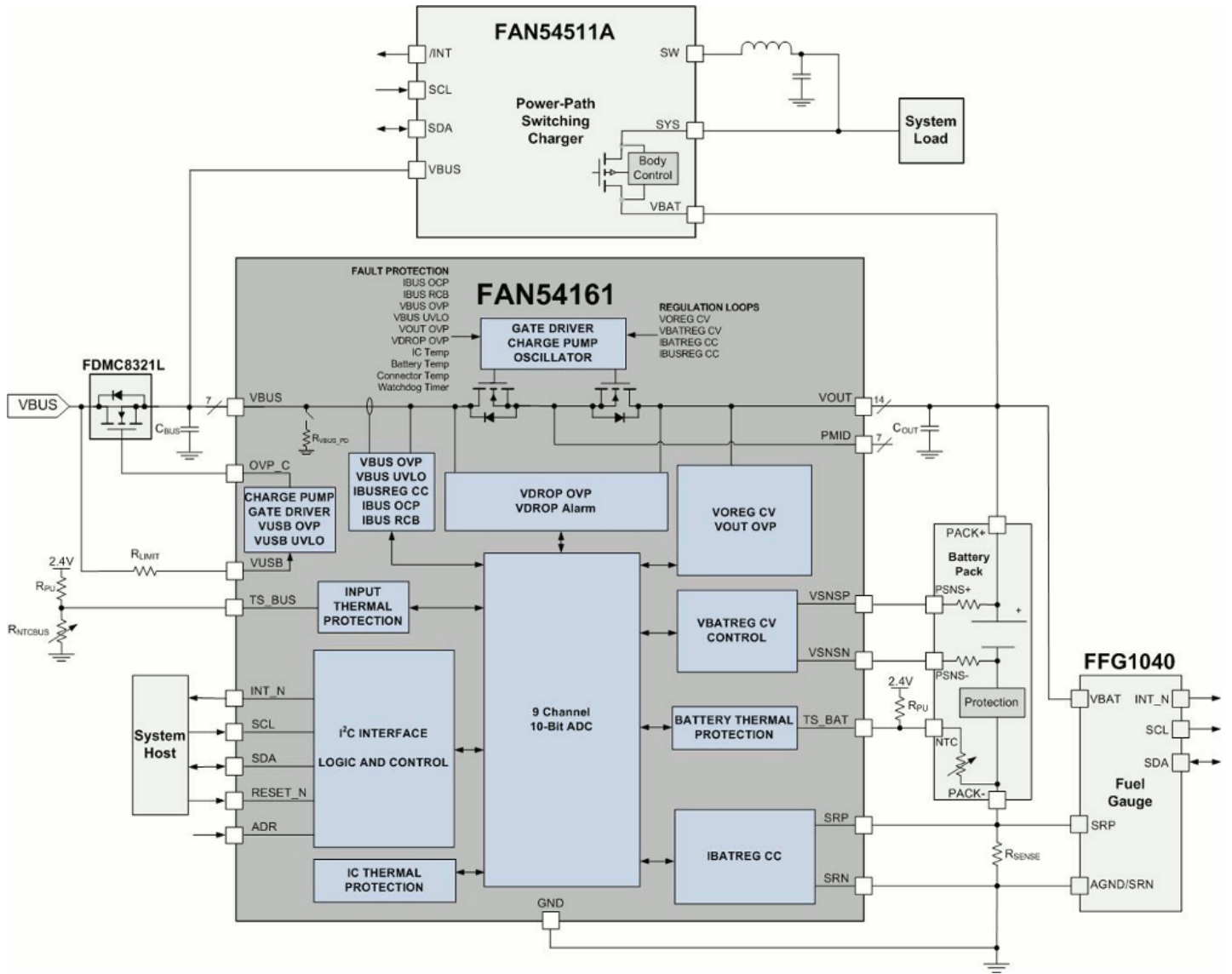
### Applications

- Mobile Devices
- Tablets

### Part Electrical Specifications

Product	Compliance	Status	Type	Number of Cells Charged	V <sub>CC</sub> Min (V)	V <sub>CC</sub> Max (V)	I <sub>D</sub> Max (μA)	Package Type
FAN54161UCX	Pb-free Halide free	Active	Li-Ion/Polymer	1	3	6.4	5.5	WLCSP-42

# Application Diagram



For more information please contact your local sales support at [www.onsemi.com](http://www.onsemi.com).

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