

## 15 Channels Rich Featured PMU for Smart Phone

### FEATURES

- **Flexible CCCV Charger with Internal MOSFET**
  - Programmable Charger Current
  - Programmable Charger Termination Voltage
  - Programmable OVP Threshold
  - Regulation against Die Thermal Condition
  - Charger Status Output, LED Driving
  - Battery Thermal Condition Monitor
  - Battery Installation Detection
  - USB Charging Compatible
- **15 Power Rails**
  - 1.2A and 0.7A Step-Down Regulators
  - Step-Up Regulator, ~40V, ~750mA Switch
  - 7 High PSRR LDOs
  - 3 Low Quiescent Current LDOs, 1 Always-on
  - 1 Standby Battery/Super-Capacitor Charger
- **Rich Functionality**
  - I<sup>2</sup>C Compatible Serial Interface
  - Touch-Screen Controller with 3-aux Inputs
  - Real Time Clock
  - 3 CC/PWM LED drivers, one of them ~40V

### APPLICATIONS

- Smart Phones, Mobile Internet Device

### GENERAL DESCRIPTION

The ACT5880 provides total 15 power rails and manages them through an I<sup>2</sup>C compatible serial interface, together with the CCCV charging battery management, builds a nearly complete environment for running smart phone system, mobile internet device system, or any system with rich peripherals like wireless modules, various radio receivers.

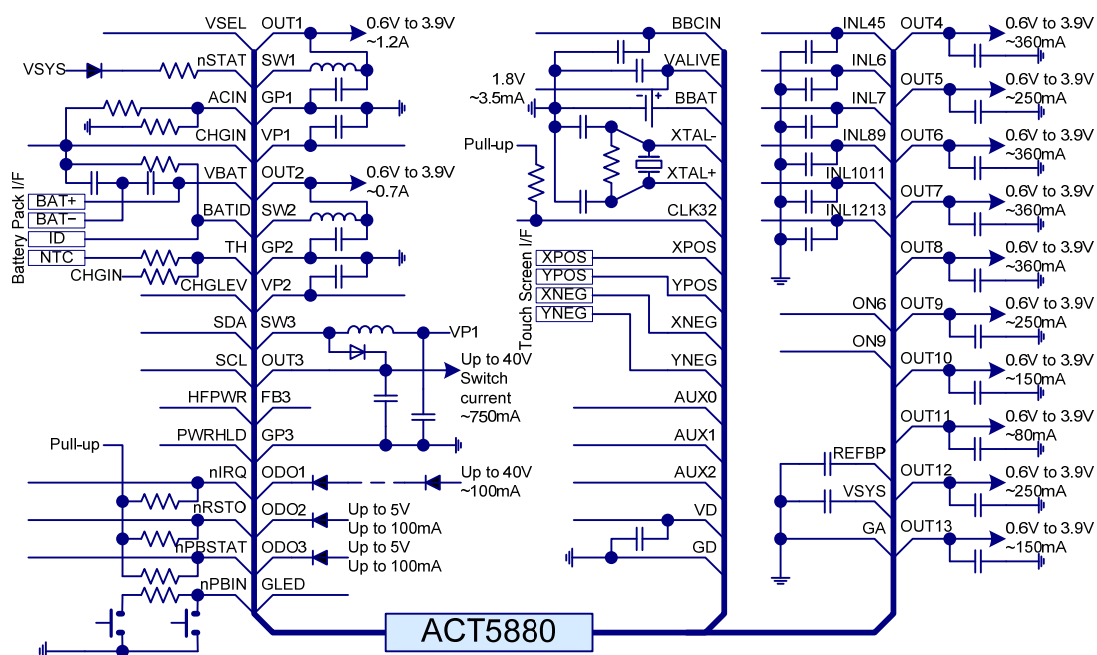
The CCCV charger in the ACT5880 is a full function super set for safe operation in various system conditions, including charging without system involving, charging with heavy system load and charging in long cord-time operation.

Other beneficial functions include a touch-screen controller, 3 current controlled LED drivers, one of which could work with 40V LED string, a RTC and a backup battery charger.

The ACT5880 is flexible to support different power on sequences and default power-on states, including on or off and voltages, which makes it suitable for various systems with different processors.

The ACT5880 is available in 81 balls, 6mmX6mm in size, 1mm in height FC FBGA package.

### TYPICAL APPLICATION DIAGRAM



## PRODUCT OPTIONS

Block	Function	Output Voltage	Capability
CHGR	Battery Charger	4.2V	Programmable up to 1A
REG1	Step-Down DC/DC	0.6V to 3.9V	1.2A
REG2	Step-Down DC/DC	0.6V to 3.9V	0.7A
REG3	Step-Down DC/DC	0.6V to 3.9V	750mA
REG4	LDO	0.6V to 3.9V	360mA
REG5	LDO	0.6V to 3.9V	250mA
REG6	LDO	0.6V to 3.9V	360mA
REG7	LDO	0.6V to 3.9V	360mA
REG8	LDO	0.6V to 3.9V	360mA
REG9	LDO	0.6V to 3.9V	250mA
REG10	LDO	0.6V to 3.9V	150mA
REG11	LDO	0.6V to 3.9V	80mA
REG12	LDO	0.6V to 3.9V	250mA
REG13	LDO	0.6V to 3.9V	150mA

## FUNCTIONAL BLOCK DIAGRAM

