

MC13883

Integrated Charger, USB On-the-Go Transceiver and Carkit Interface

Overview

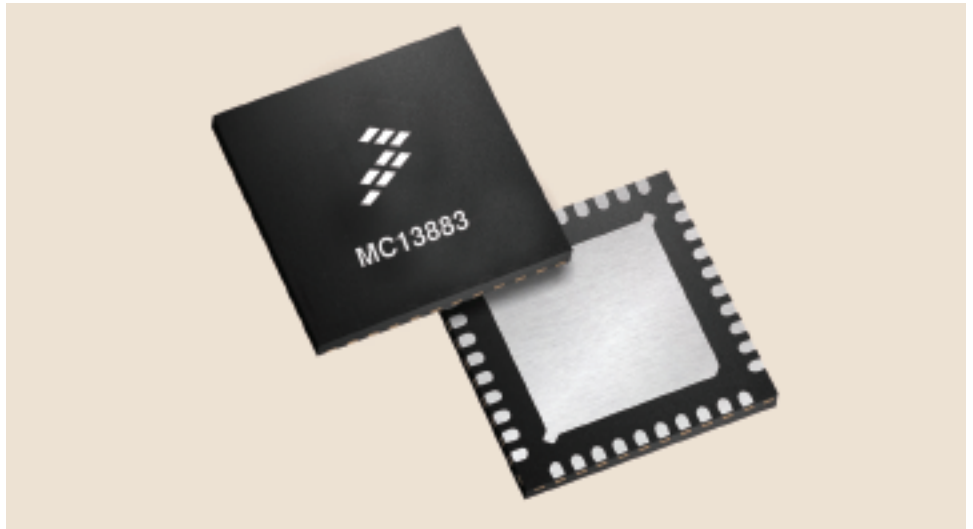
The MC13883 is a monolithic integration of a Lithium Ion battery charger with CEA-936 carkit interfacing support and a USB On-the-Go (OTG) transceiver.

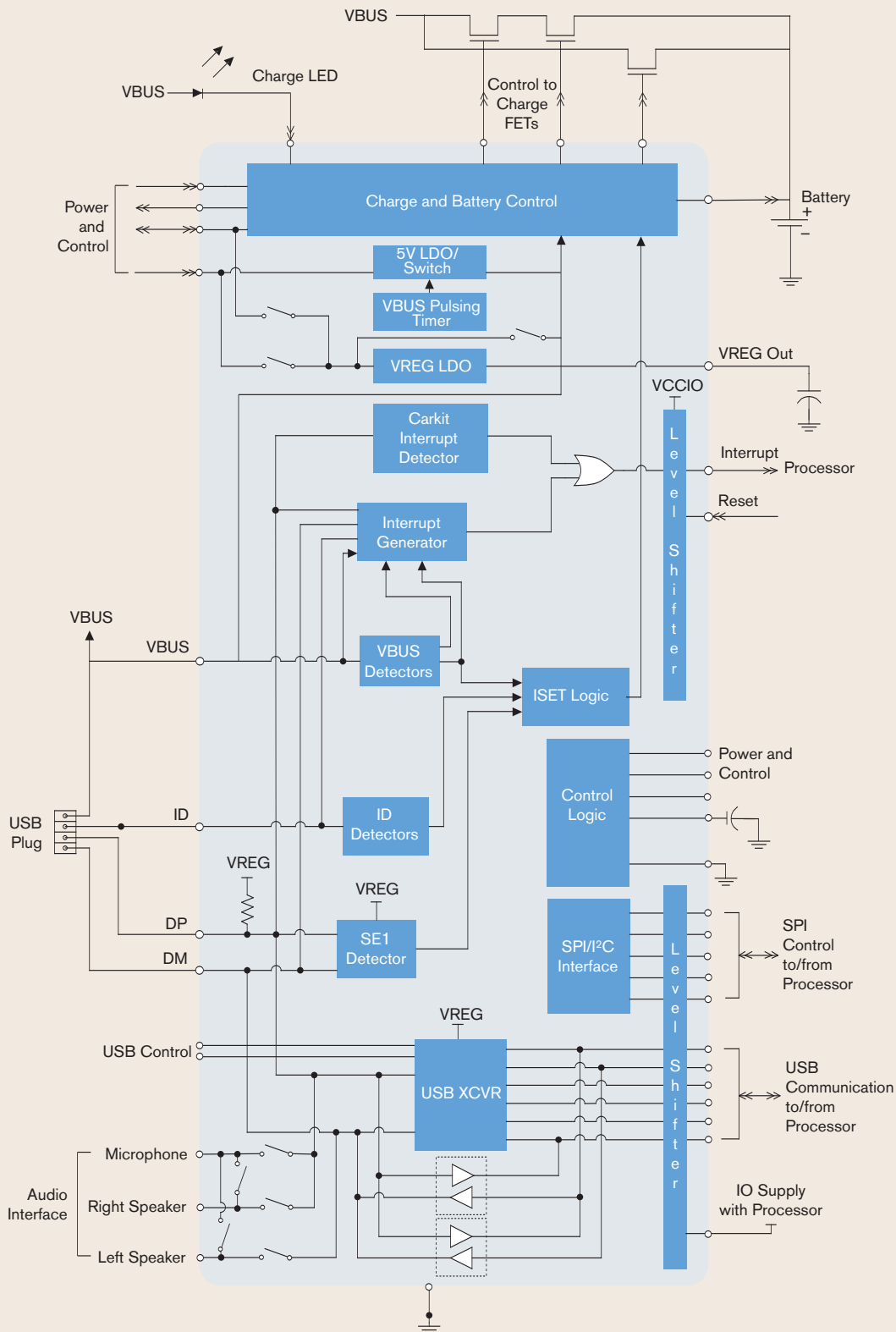
Applications

- > Cellular handsets for GSM, CDMA, TDMA, iDEN or 3G networks
- > PDAs, palmtop computers
- > Two-way radios
- > Compressed audio players, such as MP3 players
- > Digital cameras or camcorders
- > Portable DVD players
- > Intelligent toys
- > Other audio products needing to interface with the CEA-936 carkit support
- > Other portable handheld devices

Key Benefits

- > Consolidates charger and USB transceiver interfaces for component reduction and area savings
- > CEA-936 carkit support; allows cost-effective product compatibility with the new interface standard
- > CEA-936 carkit capable for communication, audio port multiplexing, and battery charging through a shared mini-USB interface
- > Modular feature set facilitates ease of system integration
- > The MC13883 IC is a protocol independent drop-in replacement that can supplement existing lineups for part/cost reduction in support of the emerging CEA-936 carkit standard





Key Features

- > Lithium Ion battery charging through a USB connector
- > Multiple charger modes and configurations supported
- > Overvoltage protection for shielding products from faulty (high-voltage) charging sources
- > Trickle pre-charge of deeply discharged batteries
- > Reverse path capability allows power to be sourced to the VBUS pin from the battery; can be used to support phone-powered devices through the USB connector
- > Charge indicator LED driver
- > USB 2.0 OTG transceiver with regulated supplies, ID detection and interrupt generation
- > Communication and audio control follows the protocol defined by CEA-936 carkit specification
- > Serial peripheral interface (SPI) and inter-integrated circuit (I²C) support for flexible processor interfacing and system integration
- > 40-pin QFN package; 6 mm x 6 mm

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